# NOT JUST FOR A RAINY DAY: SOME FINDINGS ON THE ROLE OF SAVINGS FROM THE FINANCIAL DIARIES IN MALAWI

- **Savings activity** at the banks vastly overshadowed loan activity in this market.
- **Households routinely experienced** weeks when they did not earn any income. The use of formal financial services to cope with these weeks was relatively rare and overshadowed by informal finance, but spending was much higher when formal finance was involved.
- **Households had a surprisingly frequent need** for large lump sums to pay for a good or service that regular earnings could not cover. "Mattress money" and informal financing dominated here, with formal sources covering only 9 percent of such expenditures.
- **Four percent of the sample** transitioned from unbanked status and became OIBM clients over the course of the study. But most continued to use informal financing more often than formal.
- **Women fared better than men over time** in terms of volatility of savings, though still at lower volumes than men.

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**SAVINGS ACCOUNTS HOLD STRONG POTENTIAL** as a financial instrument for low-income households to cope with economically difficult times, according to a major new research study from Malawi. Savings perform this function not only by helping such households ride out economic turbulence driven by external shocks (e.g., illnesses, weather events, poor harvests).

Savings are also the primary means by which poor people meet the need to amass relatively large sums of cash, a need that is routine and yet, more often than not, is completely unsynchronized with their income.

In fact, the study, conducted by Microfinance Opportunities (MFO) under a grant with The IRIS Center at the University of Maryland – College Park, found that erratic cash flow is one of the biggest challenges facing such households. Both income and expenses arrive at unpredictable times and in unpredictable amounts, creating chronic financial stress. The study's subjects used informal mechanisms, including "mattress money" (broadly defined as cash hidden at home or stored on the person), far more frequently than they did formal savings accounts despite some evidence that use of formal services correlates with steadier quality of life during difficult times. This disconnect suggests that a market opportunity exists for banks who can deliver savings products that meet the needs of low-income households and can market those products as the desirable solution.

MFO's study ran from July 2008 – December 2009 among hundreds of low-income Malawians. It used the Financial Diaries methodology, tracking the transactions for 172 households and 257 individuals each week over that 18-month period, yielding almost 231,000 records documenting the economic behavior of the participating households.

The data was then analyzed for insights into several questions of priority interest, including the role of savings and the value proposition of formal versus informal savings. The findings suggest that for the study population, savings were not so much a way to hedge against some hypothetical rainy day as they were a means of coping with common irregularities in both income and expenses. Whether their savings were kept in a bank account or the far more prevalent scenario of cash hidden at home, dipping into savings was standard procedure for Financial Diaries households.

### MANAGING VULNERABILITY

Even when macroeconomic conditions are relatively stable, low-income households routinely experience weeks when they do not earn any income (zero-revenue weeks). In some circumstances (e.g., a salaried


worker who is paid once a month), affected households could anticipate and plan around zero-revenue weeks, but those cases were the exceptions. The majority of households contained at least one micro-entrepreneur who was in a position to earn income every week but who nevertheless did not do so.

The use of formal financial services to cope with zero-revenue weeks was relatively rare (127 instances) and was overshadowed by informal finance (1,140 instances) such as cash gifts and informal loans. But those different sources of funding also correlated with significant differences in spending.

For households that withdrew cash from a formal bank account, general household expenditures during zero-revenue weeks were more than twice as high, compared to reliance on informal financing — $54 vs. $25.[1] The same was true for food expenditures specifically. The median weekly food expenditure of a household that withdrew cash from its bank account during no-revenue weeks was $27, while it was only $15 for households relying on informal sources. These patterns were not driven by the relatively better-off status of savings-account holders, which the analysis accounted for.[2] In sum, despite the infrequency of use compared to informal services, the use of formal savings accounts correlates with higher household spending generally, and higher food spending specifically, during difficult times.

The authors graciously thank Anne Folan for preparing this brief.

[1] All figures are calculated in terms of purchasing power parity.
[2] We compared deviations from average expenditures of households under these various conditions (i.e. expenditures in bank-withdrawal weeks deviated significantly upward, compared with other weeks).

**TABLE 1** - SOURCES OF MONEY TO PAY FOR LUMP SUMS WHEN CASH FLOW WAS NOT ENOUGH

| ALL HOUSEHOLDS | NUMBER | PERCENT | MEDIAN |
|---|---|---|---|
| Formal Financial Services | 196 | 9% | $135 |
| Informal Financial Services | 981 | 44% | $60 |
| Mattress Money/Saving at Home | 1,143 | 52% | $120 |

## MANAGING LUMP SUMS

Along with the chronic cash-flow challenges, households have a surprisingly frequent need for large lump sums to pay for a good or service that regular earnings could not cover. Half the time those needs arose, Financial Diaries households used mattress money. The rest of the time, they paid for such expenditures with some sort of cash inflow from either an informal or formal source, though once again, the informal dominates: formal sources covered only 9 percent of the total of such expenditures (Table 1).

In those instances when clients did turn to the formal sector for help in meeting a lump-sum need, savings were again preferred over loans, which is perhaps not surprising. Loan terms and conditions are likely to be dictated by the operational procedures of the formal lender. They also take time to process, making loans perhaps suitable for large expenses related to things that can be foreseen and planned, but much less attractive for other needs. Savings accounts, which provide access to cash at the time and in the amount needed, thus appeared to be the more responsive instrument for the Financial Diaries participants.

Many of the lump-sum needs among Financial Diaries participants were driven by the business needs of the households' microentrepreneurs. Use of bank inflows, again savings withdrawals for the most part, focused most often on business purchases, especially stock, although bulk household purchases were also important.

## A SAVINGS-LED ENVIRONMENT

Although their overall share of financial transactions is small relative to informal mechanisms, commercial banks in the study area clearly emphasize savings. Just under 1,300 bank transactions took place during the course of the 73 weeks of the Financial Diaries project. A vast majority of those transactions involved a savings account, with cash withdrawals 20 times more common and involving six times the dollar volume compared to loans. In fact, Opportunity International Bank of Malawi (OIBM), whose high-tech "bank on wheels" van was a central focus of the study, was virtually the lone bank player in the credit market among our sample.

## OIBM AND ITS "BANK ON WHEELS"

OIBM, launched as a savings-led institution in 2003, has posted consistent growth in both its savings and lending operations. OIBM launched the high-tech full-service banking van in 2007 to make banking more accessible, a necessary precondition to drive uptake of formal financial services among geographically remote rural populations.

Among the bank's goals for the van was to expand access among the unbanked (as opposed to inspiring a switch from one commercial bank to another) and to motivate increased savings. Here the evidence is mixed. A total of 10 individuals or 4 percent of the sample transitioned from unbanked status and became OIBM clients over the course of the study. But most of this cohort, like the sample overall, continued to use the informal alternatives as well, typically much more frequently than the bank. In other words, where transitions did occur, they were partial and gradual. This suggests that clients continue to value informal mechanisms for their convenience and immediacy as well as for maintaining social bonds. It may also be that financial habits, like habits generally, die hard and that the population requires time to acclimate to formal banking.

Comparing OIBM with its bank competitors, OIBM's clients appear to demonstrate a more consistent savings pattern. It is possible that OIBM customers are indeed more disciplined savers, and that the van is facilitating that discipline, but several factors may be skewing the finding. The non-OIBM values are especially vulnerable to distortion based on the dominant activities of a small number of individuals. Compounding the situation is the virtual monopoly that the non-OIBM banks hold over the direct-deposit proceeds from tobacco harvest auctions. The transactions of a small number of successful farmers largely explain the sharp spikes in OIBM's competitors' performance and to some extent create a false impression of savings volatility in the non-OIBM sample relative to OIBM.

More unequivocally positive were the findings around the van's beneficial effects on women's savings. When the study disaggregated by gender, it found that proximity to a van stop made a distinct difference for women compared to men. In other words, distance to and convenience of financial services may be more important to women than to men, and the van may be helping serve women's interests in this regard.

At OIBM, both men's and women's savings activity dropped between 2008 and 2009. However, men's activity dropped more sharply, while women overtook men in terms of value of savings by the fifth quarter of the study. At the non-OIBM banks, a much deeper disparity was seen between men and women. In sum, women fared better than men over time in terms of volatility of savings, though still at lower volumes than men.

## OVERALL PATTERNS AND TRENDS AMONG FORMAL SAVERS

There were 115 participants who made at least one deposit into or withdrawal from a bank savings account over the 18-month study period. Overall, they were net savers, making 441 deposits with a median amount of $150 and 581 withdrawals with a median amount of $75.

The savings activity was dominated, however, by 27 individuals who comprise less than a quarter of total savings users. This top quartile, by and large, represented the highest-income households across the sample although the correspondence was not exact. The big savers' main sources of income included tobacco farming. One of the most lucrative enterprises in the region, tobacco farming is also an enterprise in which compensation occurs in a lump sum, once or twice a year, which likely requires savings, because the amounts earned are enough to last a low-income household for many months.

Within the top-quartile of savings users, the propensity for net savings is split. There were 15 individuals whose transactions resulted in a net saving over the study period (net savers) and there were 12 individuals whose transactions resulted in a net withdrawal of money from their savings (dis-savers). The net savers had larger and more frequent deposits than the dis-savers, and larger but less frequent withdrawals. In other words, the net savers were running more money through their accounts, both in terms of deposits and withdrawals, but the former heavily outweighed the latter. For their part, the dis-savers were dealing in smaller amounts of money overall and their withdrawals heavily outweighed their deposits in terms of number of transactions.

These patterns took shape against a backdrop of an apparent overall economic downturn, perhaps linked to tobacco prices. After spiking in 2007 (shortly after the government began mandating minimum prices for export sales), prices for tobacco peaked in 2008 and then declined steeply in 2009 (though still above 2007 levels), a downturn that roughly coincided with the period of the Financial Diaries research.

Only a small fraction of the study participants earned the majority of income directly from tobacco (or other cash cropping—just 3 percent of the sample). But many were microentrepreneurs whose businesses depended to varying extents on the circulation of cash that begins with tobacco, the driver of the Central Malawian economy.

A more in-depth and expansive analysis of the macroeconomic conditions and their alignment with the experience of the study population must await further research. It is hindered in part by the relatively slow flow of official macroeconomic data out of Malawi (key 2009 economic indicators have not been finalized).

## SERVING THE CLIENT WITH TRANSACTIONAL DATA

The Financial Diaries approach is premised on the idea that aggregate transactions data provide a more accurate lens through which institutions can view the financial preferences and behaviors of consumers. In turn, this more accurate understanding will enable providers to develop better products and delivery mechanisms.

The data from Malawi, to the extent that it has external validity, suggest an ample viable market for financial services providers. The Financial Diaries households handle a surprisingly large volume of cash, and they regularly need to accumulate lump sums that exceed their weekly incomes. These are relatively high-value lump-sum exchanges, amounts quite viable for a commercial institution to intermediate.

Nearly half the time, however, the current solution for households facing a lump sum expense is to use mattress money. Most of the rest of the time, participants relied on cash gifts or spot loans from friends or family. Both loan and savings instruments could be improved by an innovative financial services provider, but that institution must be able to demonstrate that its services add value in ways that informal mechanisms by their nature cannot.

In other words, formal providers must understand that they are not just competing with other formal providers. They are competing with the convenience and immediacy of both mattress money and of informal trust networks. OIBM's van certainly represented progress on the convenience factor relative to faraway bricks-and-mortar branches. But the van's schedule of once-a-week stops, as well as its inability to leave Malawi's few paved roads, undercuts its ability to deliver timely interventions to its customers.

Savings, whether in the form of bank withdrawals or the more common mattress money, are clearly the preferred vehicle for coping with the standard scenario when lump-sum expenses do not coincide with income peaks. Given the customer preference for savings that the Financial Diaries clearly demonstrated, contractual savings products requiring small, regular contributions could help customers save to meet such needs. But the delivery channels must be such that customers can access the funds when and where they need them.

Commercial providers must leverage all the advantages that the formal systems bring to the financial services market, especially security and fair-dealing. While not difficult for a properly managed commercial institution, security is especially critical. For savings products, security more than any other factor may be the chief advantage the financial services industry enjoys over the widespread practice of storing money at home.

*This brief was prepared by Anne Folan based on* Cash In, Cash Out: Financial Transactions and Access to Finance in Malawi *(January 2011) by Guy Stuart, Michael Ferguson, and Monique Cohen. The original report can be downloaded in PDF form from www.microfinanceopportunities.org. The Financial Diaries are part of the Financial Services Assessment project, information about which can be found on the web at http://www.fsassessment.umd.edu/*

This study is part of the **Financial Services Assessment** project, undertaken by the IRIS Center at the University of Maryland and its partner, Microfinance Opportunities. The goal is to assess the impact of grants provided by the Bill and Melinda Gates Foundation to microfinance organizations for the development of innovations in financial services.

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## FUNDING

Financial Services Assessment is funded by a $6 million grant from the Bill & Melinda Gates Foundation.


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This report is part of a series that will be generated by the Financial Services Assessment project. The reports are disseminated to a broad audience including microfinance institutions and practitioners, donors, commercial and private-sector partners, policymakers, and researchers.

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