THE MYANMAR FINANCIAL DIARIES: FINANCING LUMP SUMS

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ABOUT THE MYANMAR FINANCIAL DIARIES

The UNCDF MicroLead programme funded by Livelihoods and Food Security Trust Fund (LIFT) in Myanmar aims to contribute to the development of a strong, inclusive financial sector in Myanmar. UNCDF commissioned Microfinance Opportunities and TNS Myanmar to conduct a year-long Financial Diaries research study to provide in-depth market intelligence on the economic behavior of low-income residents of Myanmar. The study covered 101 women and 10 men living in urban, peri-urban, and rural areas of the Mandalay Region. The Diaries gathered information each week between August 2014 and July 2015 on the respondents': purchases, sales, earnings, loans (including store credit), loan repayments, savings deposits and withdrawals, and transfers of money both within the household and outside of the household. The respondents also reported on any unusual events that occurred each week.

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INTRODUCTION

Lump sum expenditures—defined as expenditures that are especially large for an individual[1]—are often made to respond to life cycle events and emergencies, make investments, or purchase goods and services in bulk at a lower unit cost. A primary function of financial tools is to help individuals create the lump sums of cash necessary to make these expenditures.

Understanding the types and frequency of lump sum expenditures can provide important insights into possible designs of new financial services. For instance, individuals who make emergency-related lump sum expenditures would likely value a service that prioritizes quick and convenient access to cash. Individuals who are aware of an impending expenditure, such as an inventory purchase or construction materials to improve their home, may prefer a lay-away product. The way in which individuals finance those expenditures is also important. Consumers who prefer to make lump sum expenditures using weekly earnings and home savings may be more apprehensive to switch their financing method to a loan product provided by a microfinance institution (MFI) or bank.

This brief explores these topics as they relate to Myanmar and is based on weekly interviews conducted between August 2014 and July 2015, with 101 female respondents from the Mandalay region.[2] As the analysis below shows, these women had a diverse set of lump sum expenditures. Their 924 lump sum expenditures ranged from purchasing a television to religious offerings, but the most common such expenditure was a staple of the Myanmar household: rice. Respondents primarily paid for these using a combination of earned income and internal household resources, although cash transfers and loans were also used.

LUMP SUM EXPENDITURES

TYPES OF EXPENDITURES

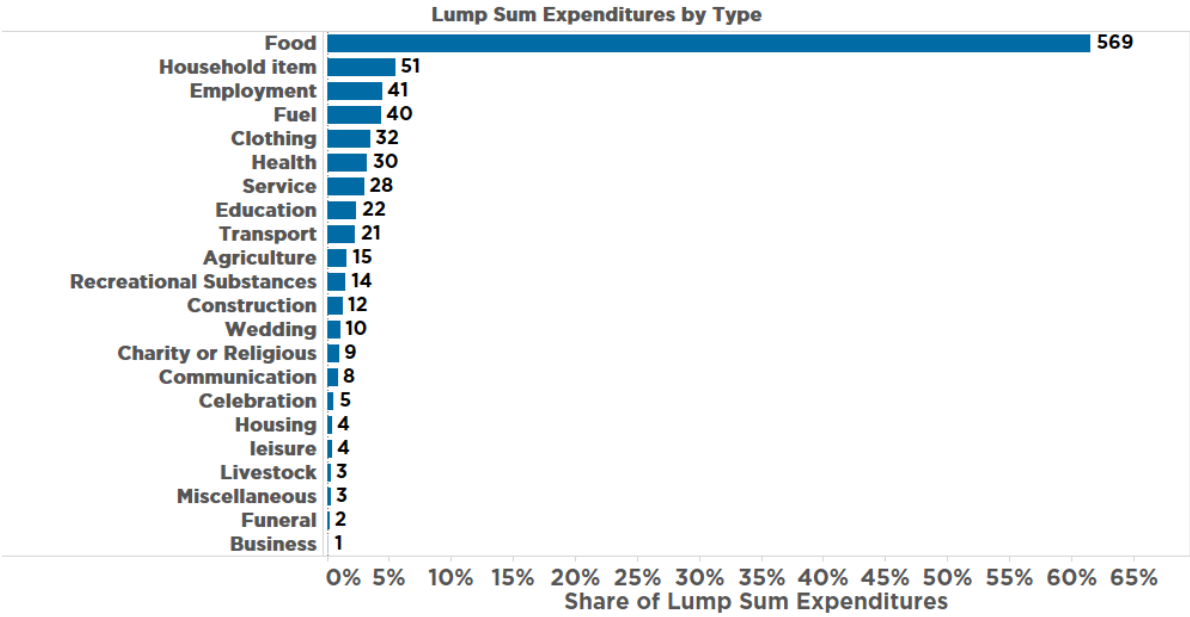
Respondents made a range of lump sum expenditures with a variety of different purposes. Sixty percent of lump sum expenditures were explicitly for a household use. The remaining 40 percent were business expenditures and were typically purchases of food items to sell at market. Large expenditures in response to life cycle events—from school fees (18 expenditures) to weddings (9 expenditures) and religious contributions (9 expenditures)—were common as were expenditures in response to emergencies. Expenditures related to medical events, for instance, were the fifth most common type of household lump sum expenditure, occurring 30 times.[3] Respondents made a variety of investments that improved their market integration by increasing their ability to travel or communicate with associates, expand their business, or represented a capital improvement. Respondents purchased four motorbikes during the course of the study, as were six cell phones, a variety of construction materials, and a house. Purchases of food—from tea leaves and curry spices to prawns and tomatoes—were the most frequent expenditure with one item being by far the most popular: rice. Purchases of rice accounted for 27 percent of all lump sum expenditures.

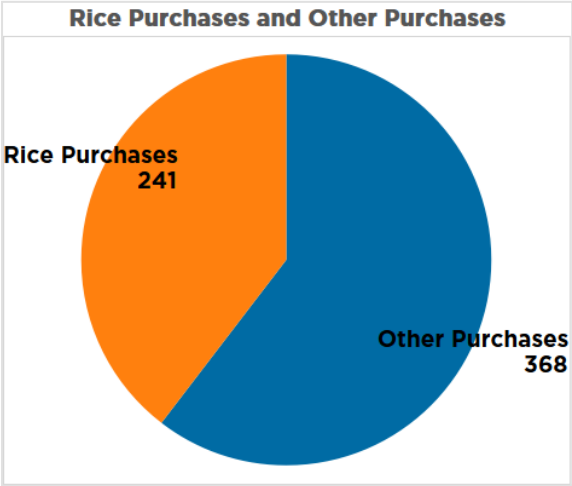
[1] MFO determines lump sum expenditures by identifying individual-specific outliers. Outliers are those expenditures that are greater than a respondent's average expenditure amount plus three times the standard deviation of her expenditures:

Lump Sum Expenditure > Average Expenditure + 3(Standard Deviation of Expenditures)

[2] Respondents were drawn from the city of Mandalay, an urban site, and the more rural areas of Kyauk Se and Nyaung Oo. For a full description of the Myanmar Financial Diaries sample see www.uncdf.org/myanmar/

[3] Although a common lump sum expenditure, this corresponds to only one health related lump sum expenditure every 1,000 days.





Food purchases were relatively inexpensive compared to other major purchases. Each transaction involved about Ks.20,000 compared to the average lump sum expenditure of Ks.38,000. Purchases of or investments in assets were much more expensive. One respondent bought livestock for Ks.1.6 million Kyat, and respondents that purchased motorcycles spent about Ks.450,000 on average. The largest single expenditure was a house that cost Ks.25 million.[4]

FREQUENCY OF EXPENDITURES

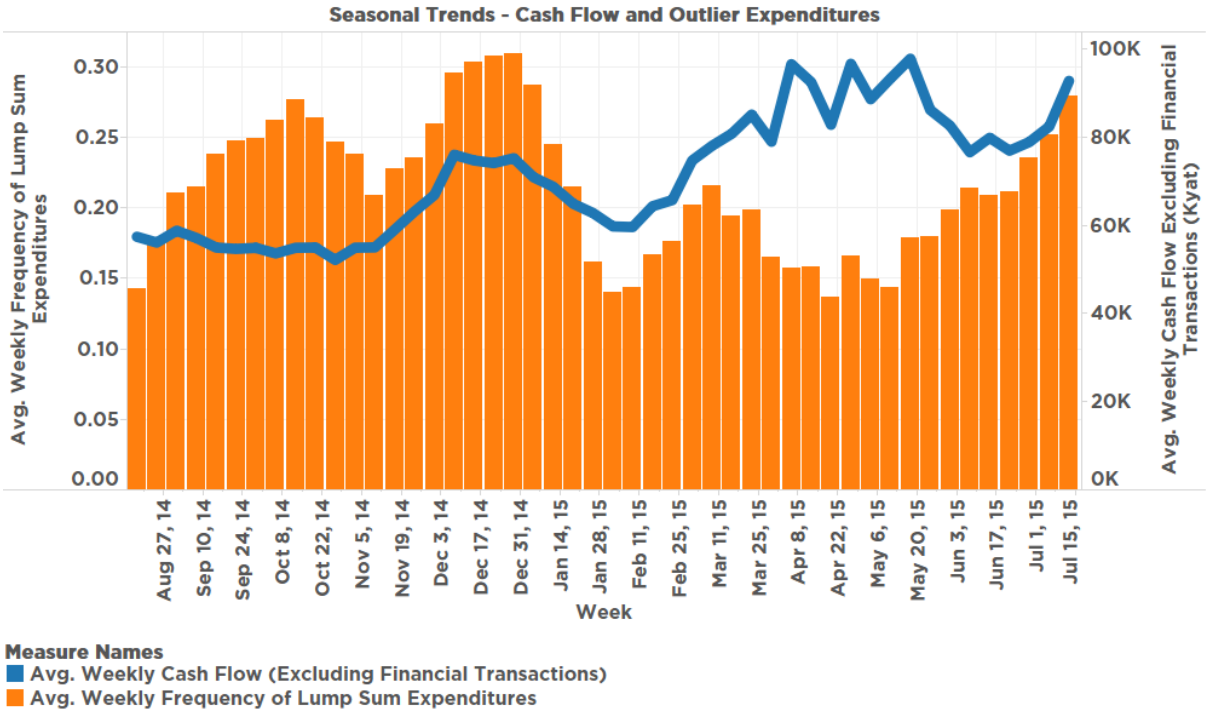
Lump sum expenditures were common for the respondents. The median respondent made six lump sum expenditures during the course of the study, which translates to one almost every two months, and every respondent incurred at least one such expenditure.

There were seasonal spikes in lump sum expenditures that appear to be uncorrelated with cash flow variations during the year. There was an apparent lean period, a period in which both income and expenditures fell, that began in September and continued until December, but lump sum expenditures spiked during this period. As the study entered the New Year, respondents reported that the sums they earned and spent stabilized while lump sum expenditures continued to move cyclically.

It is unclear what is driving the lump sum expenditures. There seems to be some relationship between bulk purchases of rice that peaked around the time of the rice harvest in December. There was another spike in lump sum spending around the time of the second harvest period we observed, but the spike was short-lived and the second harvest period lasted for much of February and March and into April.[5]

[4] As of Dec. 1, 2015, $1 could purchase Ks.1,300. At this exchange rate, Ks.38,000 is equivalent to about $29. However, the Kyat has faced significant depreciation since the start of the study. In August 2014, $1 could purchase about Ks.950.

[5] For more on the seasons observed in the Diaries data see "The Seasonal Impact on Economic Behavior in Myanmar."



RESPONDENT CHARACTERISTICS AND EXPENDITURES

There are particular respondent characteristics that are associated with lump sum expenditure behavior.[6] Respondents in the Mandalay township—the only urban research site—appear less likely to experience lump sum expenditures than respondents in rural research sites in the townships of Kyauk Se and Nyaung Oo. Micro-entrepreneurs, regardless of geographic location, were more likely to spend a lump sum than any other livelihood.

The pattern of respondents' income was also associated with how they made lump sum expenditures. Respondents with higher levels of income variability[7] from week-to-week performed fewer lump sum expenditures, but when they did make expenditures they were often larger than their low-variation peers.[8]

FINANCING USEFUL LUMP SUMS

Imagine a woman who, in a week without a lump sum expenditure, pays for her goods with a combination of earnings from her food business, a small line of credit from a shop owner, and money from savings she keeps in a box in her house. In a week in which she has a lump sum expenditure, she must pull on these sources *and* ask her son, who lives in

[6] The differences in characteristics are visible using descriptive statistics. To control for confounding variables, MFO modeled the likelihood of incurring an outlier using a data set that contains average weekly value of each variable that were calculated using the panel data. This does reduce variation in the data but allows for the inclusion of variables that can only be calculated with multiple data points, like the coefficient of variation. Average weekly income, week-to-week income variation, regional and livelihood dummy variables, as well as demographic indicators (age, family size, education, etc.) were included in the model. Standard errors were clustered. Readers should note the small number of respondents included in the model (N=101).

[7] The measure of week-to-week variation used in this analysis is the coefficient of variation of average weekly income. It is computed by dividing respondents' standard deviation of income by their average weekly income. While a simple measure, MFO has shown that this measure of income volatility may be a strong predictor of financial service use. For more information on this topic see our brief "Understanding Income Behavior and Financial Service Use."

[8] As might be expected, we also found that respondents with higher levels of income had lump sum expenditures of a larger value too. Together, these data raise an important question of causality: Are respondents making lump sum expenditures in response to variable income or are does the need for these expenditures drive respondents to seek income sources, resulting in large income spikes?

another village, for a cash transfer. If that is not enough, she may turn to the local moneylender. The lump sum expenditure forces her to use more financial tools and to pull more money through them.

While informal services may suffice in a typical week, the need for larger sums of cash may necessitate using a broader set of financial tools—by using loans as well as savings for instance—and accessing a broader financial network by requesting money from neighbors, savings groups, or MFIs. The need for access creates an opportunity to offer services that increase convenience, like a quick-access loan facility, or make consumers' money work harder for them by providing products like an interest-earning savings account.

The Myanmar Financial Diaries can help FSPs understand how individuals access cash when they make lump sum expenditures by identifying how the volume of cash that flows through different sources of money changes in weeks when such an expense occurs. By comparing the value of each source as a share of total weekly money inflows in weeks with and without a lump sum expenditure, the Financial Diaries methodology can also allow FSPs to make inferences about the relative value of financial tools in weeks when large expenditures occurred.

Respondents in the study, like our imaginary woman above, pull in more money from every source available to them when they make a lump sum expenditure. They earn more, receive larger transfers from other members of the household, withdraw more from savings, receive larger cash gifts from individuals outside the home, and get more money from loans. Additionally, respondents appear to have pulled money from these sources in similar proportion to weeks with a typical level of expenditure. However, earned income and internal household resources (transfers from household members and savings) remain the primary source of cash to make these purchases, accounting for roughly 90 percent of income from week-to-week.[9]

Income Source	**Spending in Typical Week**	**Spending in Weeks with Lump Sum Expenditures**	**Share in Typical Week**	**Change in Share in Weeks with Lump Sum Expenditures**
Earned Income	17,108	37,433**	29.2%	1.0%
Household Transfers	16,330	22,590***	48.1%	- 5.9%***
Home Savings	4,789	19,550	15.0%	+ 1.7%
External Savings	,972	2,246**	.4%	+ .2%
Cash Transfers	709	1,387	1.7%	+ .01%
Loans	5,701	14,964**	5.5%	+ 2.3%**

***P<.01 **P<.05

This general pattern—of respondents using their earned income, internal cash transfers, and home savings—is consistent with how respondents finance sub-sets of lump sum expenditures. However, the composition of these financing sources does change. For instance, earned income is a larger share of total inflows in weeks when respondents make business related lump sum expenditures, suggesting they reinvest revenue from their business, often in the form of inventory purchases. For household purchases, respondents rely relatively more on home savings and household transfers. The composition of the financing sources can change with the types of goods respondents purchased.

[9] MFO utilized a series of simple fixed-effect regression models to examine the change between typical weeks and weeks with a lump sum expenditure. In each model one income source like home savings, cash transfers, or earned income was the independent variable. The dependent variable was a dummy variable for whether a respondent made a lump sum expenditure in a given week or not. Standard errors were clustered.

Respondents relied more on home savings to make purchases of durable goods than they did to make lump sum food expenditures. However, in both cases, earned income was the largest source of funds.

IMPLICATIONS

This analysis shows that respondents frequently made lump sum expenditures but these expenditures tended to be bulk purchases of food and household goods, especially rice. The analysis has also shown that lump sum expenditures tend to be seasonal, spiking before celebrations and harvest cycles. When these expenditures did occur, respondents generally paid for them with cash resources from within the household but did rely more on external cash transfers and loans. These results have important implications for FSPs wishing to expand financial inclusion.

THE POTENTIAL POWER OF RICE

The frequency of rice purchases was not limited to lump sum expenditures. Non-lump sum expenditures of rice were very common in the data, occurring about once every two weeks on average. FSPs can use consumers' predilection to purchase rice in bulk to expand financial access by integrating account services and digital payment options into the rice supply chain. This strategy would require a bank or mobile network operator to create a payments platform that medium to large enterprises could use to pay suppliers, receive payments from clients, and distribute payroll. Those larger organizations could encourage (or require) small to medium sized enterprises to adopt this new technology or service in order to interface with the top of the supply chain. The presumption is that micro-entrepreneurs would follow suit. With the entire supply chain utilizing the same payment system, consumers would have cause to explore the adoption of this formal service. Adoption could be encouraged by offering products that allow consumers to pay for large amounts of rice by making small payments over time, all electronically, to their local vendor. FSPs or government entities could provide incentives to actors in the supply chain who take steps to drive adoption down to the consumer level.

RESPONDING TO CYCLES

There are spikes in the frequency of lump sum expenditures about once a quarter, and the spikes are proximate to major yearly events like harvests and celebrations. These periods represent an opportunity to present consumers with the right product at the right time.

A multitude of products could be envisioned – commitment savings products, loans available via mobile money accounts, or savings groups that operate on a quarterly cycle, etc. The real value of this data is its ability to inform the timing of the marketing for these products.

Adopting a financial service can induce anxiety, especially for consumers with low levels of financial capability, but the run up to these purchase cycles are potential pain points for consumers who are planning a major purchase, creating additional anxiety. They are periods when consumers are saving more than normal, working longer hours, and in need of convenient ways to gain access to additional cash. Consumers, presented with financial services that are easy to understand and address these cyclical strains, may find adoption of a new service relieves stress rather than inducing it.

MOVING MONEY FROM UNDER THE MATTRESS

While tapping into the supply chain for rice and offering products tied to the cyclical nature of lump sum expenditures have the opportunity to expand financial inclusion, they are predicated on getting consumers to move money from under their mattresses and in to an FSP's system. This is important in Myanmar, where 90 percent of expenditures are

being paid for using resource from within households. The data and previous research suggest that FSPs should focus on three principles as a foundation to encourage consumer investment in their systems. First, FSPs should focus on clarity of service – complex know your-customer (KYC) requirements or opaque loan-terms will be frustrating to consumers used to interacting with family, friends, and the local shop keeper. Second, FSPs must contribute to a culture of trust, especially in a nascent financial market like Myanmar's. Third, FSPs need to develop products, services, and infrastructure that emphasize convenience. Convenience is a feature of the most heavily used financial tools consumers use to finance their expenditures. To mimic this trait, FSPs need to develop services that are geographically proximate to consumers, maintain liquidity throughout the system so cash is available when people need it, and limit wait times in order to respect consumers time sensitive cash needs.