THE MYANMAR FINANCIAL DIARIES: FINANCING LUMP SUMS

Eric Noggle and Guy Stuart, Microfinance Opportunities

December 2015

INTRODUCTION

Lump sum expenditures – defined as expenditures that are especially large for an individual[1] –are often made to respond to life cycle events, respond to emergencies, make investments, or purchase goods or services in bulk at a lower unit-cost. A primary role 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 for financial service design. For instance, individuals who make emergency-related lump sum expenditures would likely value a service that prioritizes quick and convenient access to cash while those who are aware of an expenditure they will need to make in the future – whether an inventory purchase or construction materials to improve the home – would prefer a lay-away product. How individuals finance those expenditures is also important. If individuals currently manage to pay for lump sum expenditures out of savings they keep under their mattresses, it may make more sense to develop products that incentive moving that savings into a FSPs system than push respondents to less familiar or desirable loan products.

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 will show, these women had a diverse set of lump sum expenditures. Their 609 lump sum expenditures ranged from purchasing a TV to religious offerings, but the most common such expenditure is a staple of the Myanmar household: rice. The analysis will also show that these purchases were largely paid for using a combination of earned income and internal household resources, although cash transfers and loans also played an important role.

---

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

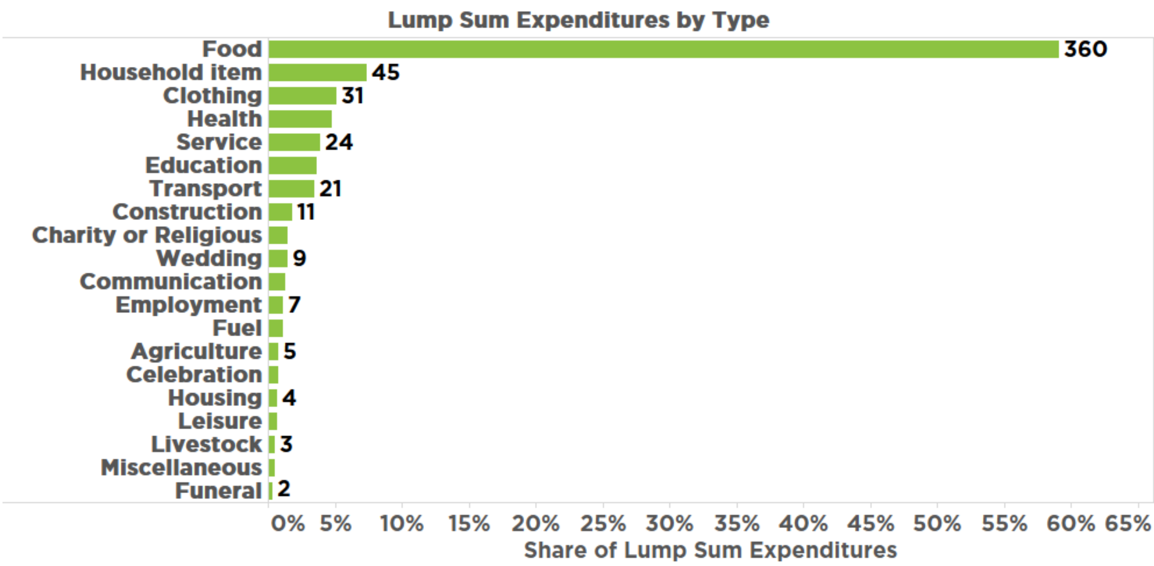
Lump Sum Expenditure > Average Expenditure + 3(Standard Deviation of Expenditures)

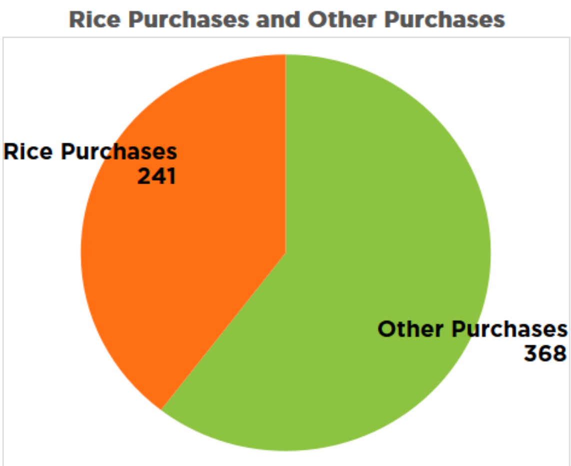
[2] Respondents were drawn from the city of Mandalay, an urban site, and the more rural areas of Kyauske and Nyaung Oo. For a full description of the Myanmar Financial Diaries sample see "www.uncdf.org/myanmar/"

LUMP SUM EXPENDITURES

TYPES OF EXPENDITURES

The Myanmar Financial Diaries show that respondents made a range of lump sum expenditures with a variety of different purposes. Large expenditures in response to life cycle events – from school fees (22 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 fourth most common type of lump sum expenditure, occurring 29 times.[3] Respondents made a variety of investments that improved their market integration (by increasing their ability to travel or communicate with associates), could be used in a business, or represented a capital improvement. Four motorbikes were purchased 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 by far the most frequent expenditure with one item being by far the most popular: rice. Purchases of rice accounted for 40 percent of all lump sum expenditures.





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

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

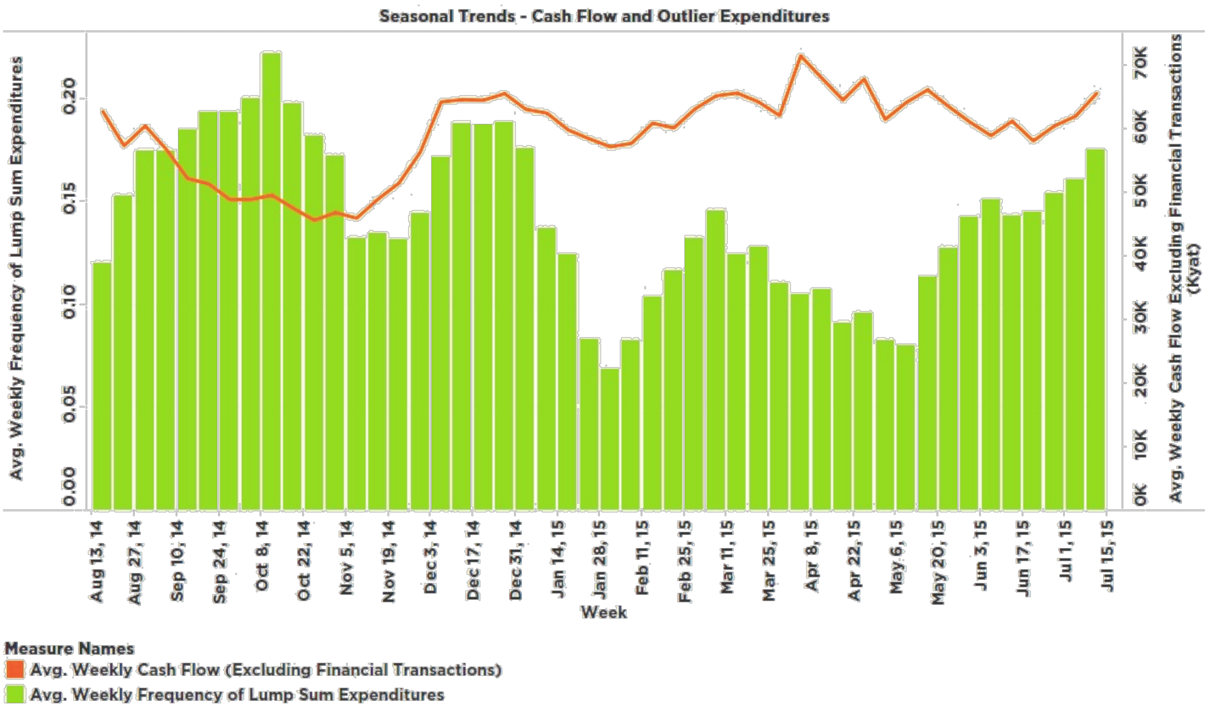
Kyat.[4]

FREQUENCY OF EXPENDITURES

Lump sum expenditures were common for the Diaries' respondents. On average, a 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 general cash flow through much of the year. There was an apparent lean period (a period in which both income and expenditures fall) 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 their earning and spending stabilized while lump sum expenditures continued to move cyclically.

The data suggest that there are a number of potential drivers for this cyclical activity. For instances, purchases of rice spiked immediately before and after the rice harvest, which occurs in early November. A qualitative examination of the data suggests that festival seasons may play an important role. Every cyclical spike predates major religious or cultural events by just a few weeks. New Year and Independence Day celebrations in January are predated by a higher frequency of lump sum expenditures in December. The Water Festival, which occurred during the first week of April, was preceded by a relative peak two weeks previously.



[4] As of Dec. 1, 2015, $1 could purchase 1,300 Kyat. At current exchange rates, 38,000 Kyat 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 950 Kyat.

RESPONDENT CHARACTERISTICS AND EXPENDITURES

The Diaries data show that there are particular respondent characteristics that are associated with lump sum expenditure behavior. [5] Respondents in the Mandalay township – the only urban research site - appear less likely to experience lump sum expenditures than respondents in the rural research sites in Kyaukse 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 also mattered. Respondents with higher levels of income variability[6] from week-to-week performed fewer lump sum expenditures, but when they did make expenditures they were often larger than their low variation peers.[7]

FINANCING USEFUL LUMP SUMS

Imagine a woman who, in a week without a lump sum expenditure, pays for her goods with a combination of income 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 income sources *and* ask her son, who lives in another village, for a cash transfer. If that is not enough, she may turn to the local money lender. 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 (e.g. loans as well as savings) and accessing a broader financial network (e.g. going outside the immediate family network to a savings group or MFI). 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 using an interest-earning savings product).

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 income sources and financial tools changes in weeks when such an expense occurs. By comparing the value of each income source and financial tool as a share of total weekly income in weeks with and without a lump sum expenditure, the Diaries can also allow FSPs to make inferences about the relative value of financial tools in weeks when large expenditures occurred,

---

[5] The differences in characteristics are visible using descriptive statistics. To control for confounding variables, the likelihood of incurring an outlier was modeled using a cross-sectional version of MFO's data set. 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).

[6] 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."

[7] 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?

The Myanmar Financial Diaries show that, like our imaginary woman above, respondents pull in more money from every income source available to them when they make a lump sum expenditure. They earn more, receive larger transfers from other members of the household (intra-household transfers or IHTs), 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 income sources in similar proportion to weeks with a typical level of expenditure. While there is a measurable rise in the reliance on loans and external cash transfers to finance these expenditures, earned income and internal household resources accounted for roughly 90 percent of income from week-to-week. [8]

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	19355	30,231**	29.7%	- 2.2%
IHTs	16715	22,430***	47.6%	- 4.7%***
Home Savings	5483	20,525	15.0%	+ 2.7%
External Savings	924	3,048**	.4%	+ .6%
Cash Transfers	688	1,758	1.7%	+ 1.1%
Loans	6433	13,619**	5.6%	+ 2.4%**

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

IMPLICATIONS

This analysis has shown that respondents in the Myanmar Financial Diaries 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. But how can FSPs use consumers' predilection for rice to expand financial services? A potential option is to use the supply chain for rice to expand formal financial service use. This strategy would require a bank or mobile network operator (MNO) 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

[8] 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.

encourage (or require) small to medium sized enterprises (SME) 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. Incentives could be given to actors in the supply-chain for driving adoption down to the consumer level.

RESPONDING TO CYCLES

The Diaries data show that there are spikes in the frequency of lump sum expenditures about once a quarter and that these occur 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, 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 be anxiety inducing, 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. If respondents are presented with financial services that are easy to understand and address these cyclical strains, adoption of a new service may relieve stress rather than induce 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.