

EARMARKING MONEY: PARTITIONS, GUILT AND THE DECISION TO SPEND

With low rates of personal savings becoming endemic, 'earmarking' your funds can be a helpful money-management strategy.



THERE IS WIDESPREAD CONCERN about declining savings rates among consumers. Indeed, the problem defies boundaries, ranging from sophisticated western economies with a high prevalence of consumer credit to more traditional economies in rural areas of the developing world, where banking infrastructure is almost non-existent. Record numbers of personal bankruptcies and delinquencies have been reported in North America, while observers have commented that the rural markets of India and China will only emerge as a force if these consumers learn how to manage their money.

Washington University's **Amar Cheema** and I recently set out to study one particular approach to personal money management: *earmarking* money. The term 'earmarking' is typically used to describe the labeling of funds for a specific use. However, it often describes a more specific practice, in which earmarked money is kept distinct from other funds, either through physical segregation or other forms of categorization, such as a separate bank account. For example, many households open separate bank accounts for their children's education expenses or for home-repairs.

When money is deposited into such accounts, the thinking goes, it becomes 'sticky' and stays there rather than being spent on other things. Earmarking thus represents a self-

imposed rule that is used to control spending, and following such a rule requires the exertion of willpower to control impulsive short-term behaviour in favor of longer-term benefits. Breaking such a self-imposed rule can be psychologically costly, leading to feelings of failure or a loss of faith in oneself. But is the possibility of such a negative effect a strong-enough deterrent to lead one to follow the self-imposed rule?

In prior research conducted in 2007, Prof. Cheema and I found that taking a particular quantity of a resource – say, food or money – and physically partitioning it into smaller quantities changes the temporal pattern of consumption of that resource, leading to greater self control [see “The Effects of Partitioning on Consumption”, *Rotman*, Spring 2008]. We set out to build on these findings by studying the effects of partitioning an earmarked amount of money on the guilt associated with using that money for an unrelated expense.

Given our previous findings, we expected to find that using partitioned money (i.e., money from two separate accounts) for expenses unrelated to the intended earmark would lead to a higher amount of guilt than using funds from one account. Consequently, the desire to avoid this guilt would lead to greater self-control when the earmarked money is partitioned into two accounts than when it is pooled in one account.

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marked money on an unrelated expense – rather than the magnitude of the expense – is what would induce guilt. This expectation is consistent with the ‘hedonic editing’ practice of aggregating monetary losses – whereby one \$20 loss hurts less than two separate losses of \$10 each.

We tested our hypotheses in a field setting featuring low-income consumers at the ‘bottom of the pyramid’: labourers at an infrastructure-construction project in rural India. The chosen project had been ongoing for eight months and was expected to last for more than another year. Labourers received cash wages with a frequency ranging from once a day to once a week, and a workweek had six days. Such infrastructure projects usually spawn off several small townships in the general vicinity. It is important to note that while these townships are full-fledged in other regards, they often lack services such as banks and post offices. Only about seven per cent of such Indian villages are served by banks.

Of particular interest to our study, none of the townships included in this study were served by banks, and hence people in these townships were habituated to a cash economy. None of them even had any banking experience: they earned cash and they spent cash. Of our 146 participants, 20 had previously pawned possessions for cash and another eight were aware of the existence of moneylenders and pawn shops. While all participants could converse fluently in the local language and could understand simple written instructions, many could not read beyond a few lines of text. All participants could count, add and subtract with ease and bargain at the local markets.

For the purpose of our study, we recruited households where the labourer was the sole wage earner, belonged to a specific trade, had two children aged between two and seven and lived with a spouse and two children in a township within walking distance of the project. Given that all participants were from the same profession, they all earned the same amount: 670 Rupees [CAD\$15.50] per week, paid in cash on Saturday. We eliminated potential participants who had unusual additional financial burdens (e.g., covering household expenses for extended family elsewhere).

Our interviews suggested that the frequent pay periods resulted in the participants living their lives ‘one week at a time’. They budgeted in very narrow temporal frames and

ended up making poor economic decisions. All participants reported that they would have liked to save more money so they could afford to feed, clothe and educate their children, but they had barely enough to make ends meet.

A financial planner, accompanied by a social worker, visited each of the 146 families, helping participants identify better money-management strategies. The planner further told each household that one simple way of saving more money was to set a savings target.

The current savings rate for this group was very low: in the six months prior to our experiment, the mean savings rate was 0.75%, with 90 per cent of participants saving less than or equal to two per cent. In the context of our study, the financial planner determined that saving Rs. 40 each week (a rate of six per cent) was achievable. In addition, we gave some participants a more ambitious savings target of 12 per cent.

The planner gave each participant their target savings amount, and said that the social worker would help put aside this amount each week in sealed envelopes. Participants were free to open those envelopes if needed, but it was emphasized that, ideally, they should keep the envelopes closed. It was emphasized that if they had to open the envelope for non-discretionary expenses, they should try and draw only as much as they actually needed and put the rest back.

The financial planner went over these details several times to ensure that the labourers and their spouses understood the advice and the specific method of earmarking the savings in envelopes. At the end of the meeting, he informed participants that he would visit the household on the Saturday on which cash wages were disbursed in order to earmark the savings amount and to record the household’s saving over the previous week. For each of the next 15 Saturdays, social workers visited the 146 households, put the prescribed (earmarked) amount in savings envelopes and sealed and dated the envelopes. The social workers also recorded whether the savings envelopes from the previous weeks were sealed or opened, along with the exact amount saved in the previous week.

For about half the households, the earmarked savings were sealed in plain white envelopes, and for the remaining ones, the envelopes had photographs of the participants’ children pasted on them. This was expected to increase the guilt associated

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with using the savings for other expenses. We also manipulated partitioning across participants: for about half of them, the savings amount was sealed in one envelope, and for the other half, the amount was divided equally across two envelopes. Participants were assigned to one of these conditions based on geographic and social clusters, with the goal of trying to minimize the possibility that two households from different treatment conditions met and discussed their participation.

Our Findings

We summed up each household's total savings (in Rupees) over the 14 weeks and consistent with our hypothesis, savings were higher when the earmarked amount was partitioned into two envelopes. It appears that opening an envelope indicated a failure to follow a rule, which could lead to easier subsequent spending from the envelope consistent with the 'what-the-hell' effect. We also wanted to explore the factors that affected the likelihood of participants opening an earmarked envelope (i.e., violating the savings rule) in any given week.

The data revealed that households whose earmarked savings amounts were partitioned saved more than those whose earmarked savings were not partitioned. Furthermore, partitions were more effective when the guilt associated with using the earmarked money was emphasized by placing pictures of their children on the envelope. This intervention also decreased the likelihood that a household would open a savings envelope in a given week, especially among households who had lower savings targets.

Households that were provided higher savings targets were quite likely to open a savings envelope (85 per cent) – possibly because the amount was too large to spare from everyday expenses. In this context, the intervention of placing pictures on the envelopes did not decrease the likelihood of an envelope being opened. Furthermore, households for whom the larger earmarked amount was not partitioned (i.e., it was in one envelope) saved less than those for whom this amount was partitioned across two envelopes. Households who had high (versus low) targets and who had the earmarked amount in one

envelope (versus partitioned across two envelopes) saved the least over the period of our study.

In Closing

Prof. Cheema and I continue to work with others to develop budgeting tools to help low-income consumers such as those depicted in our study. Two Rotman MBA students from the Class of 2009, **Kavitha Narasimhan** and **Fiona Tam**, have designed the next generation of 'sealed envelopes': a product that we call the 'budgeting box'. The box has a system of slots and compartments which allows workers to put aside spare money over the months that then collects in compartments where it is earmarked for specific uses. Early tests with this concept are encouraging, and a more refined version is being developed for testing in rural India.

While researchers in the area of mental accounting have repeatedly stressed the general idea that labeling money changes the manner in which that money is spent, prior to our study, little had been done to study how the various phenomena documented could be harnessed to help people better manage their household finances. We have addressed this gap with our finding that using partitioned money (from two accounts) for expenses unrelated to those earmarked for leads to a higher amount of guilt than using money from one account, and the desire to avoid this guilt leads to greater self-control when the earmarked money is partitioned into two accounts than when it is pooled in one account.

At a time where there is a significant need to increase consumer prudence and savings rates across nations, our findings provide two specific interventions – earmarking and partitioning – that can help to achieve this outcome. **R**

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