

Melissa Cliver's research uses a participatory design framework to help coffee farmers imagine alternative income streams that benefit the community while preserving ritual obligations and special purchases for life course goals.

Design Principle 1: Earmarked Income Outside of Rank.

- Identify cash stream personalities: Government payments are for school; Remittance money is for houses; Loans are for equipment; Flower money is for clothes.
- Create a new cash stream: Income "for everyone" or income "to be distributed by the patron" in a separate savings product from other cash streams.

Poor people's existing savings behavior involves **social obligations** and commitments, not just individual self-discipline or planning for the future. New savings systems should be designed to allow people to meet their social obligations as a means toward enhancing their individual savings behavior. **Social obligation does not just mean trust or commitment**. It can mean patron/client relationships, quasi-feudal fealty, a "networked self" that is defined not by an individual but by a network of relationships.

It has long been known that social obligations are important. Still, however, existing products for the poor do not adequately take social obligations into account and are modeled on individual savings accounts, or on pooled accounts modeled on ROSCAs that treat groups as aggregations of individuals rather than focusing on social relationships. Social obligations, however, are *not* merely a matter of an *individual's* commitment to others.

In several of the contexts studied by IMTFI researchers, people are operating within systems of *rank* that differentiate people from one another. By rank, we refer to a naturalized hierarchy reflected in ritual relationships as well as everyday practice – such as walking single-file in rank order down the road (senior men of high status first, then junior men of high status, then senior men of lower status, then junior men of lower status, then women of high status, etc., as is still done in many parts of southern Mexico).





María Eugenia Santana and Magdalena Villareal's research highlighted the importance of patron/client relationships in flows of wealth for ritual events. People earn prestige by providing wealth for festivals and demonstrate their fealty to saints and patrons. Patrons collect wealth in people, not money, to demonstrate their own fealty.

Design Principle 2: Design for Rank.

- Identify social and ritual obligations. People are not always individuals, but nodes in networks of relationships. Who are the key nodes? How are they ranked?
- How can people demonstrate that they are "good" members of their rank?
- Help people save wealth items necessary to support their rank obligations, while saving state currency for their own goals.

Savings has the potential to level rank distinctions, but this might not be the best starting point for promoting a new product or system. A product that helps people escape hierarchical rank will be seen as promoting selfishness or anti-group sentiment, or even as going against the gods or saints. People often do not want to escape rank or patronage relationships: they provide security, predictability, and order.





Kenneth Omeje is documenting how oracular deities "manage" wealth in Igbo communities by confiscating property of those who displease them and lease it out – renting wheelbarrows, bicycles and tools taken from those believed to have been killed in retribution for their offences to the gods. Shrines and oracles become key sites in the management of savings and credit. Default = death!

Design Principle 3: Flexibility with Sanctions.

- Start with the ritual leader. Can the ritual leader become an agent or intermediary for savings? Can the property confiscated by the gods be leveraged?
- Intertwine conventional savings products with ritual savings and credit systems: if the "banks won't lend for weddings," could the bank work with the ritual sanctions to provide other forms of savings that would help in accruing funds necessary for life course and ritual events?
- > Model savings rituals on religious rituals.

Poor people's informal practices of lending and saving, whether in a rotating credit association or in a ritual or religious context (i.e., making a contribution toward a seasonal festival), are often *negotiable and flexible*. There are informal mechanisms for making up for a missed payment or for putting saved funds toward other uses if necessary. The social sanctions that befall a defaulter or non-payer are strong enough to ensure eventual payment, since people will often place their social or ritual obligations above their own personal goals.

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Syed Aiman Raza is documenting the beesi networks of religiouslydemarcated embroidery workers in Lucknow who save for religious festivals but often incur debt as a result.

Design Principle 4: Structured Illiquidity.

- Respect people's preferences for illiquidity. In contexts where state currencies are weak and banking institutions are fragile, illiquid, nonfinancial wealth (land, livestock) can matter much more than money.
- Illiquidity can be tied to individual, group or religious goals: you can deposit, but a portion of your deposits are withheld until you reach that goal.
- Products can be structured in accordance with religious precepts and on ritual calendars.

Existing savings products vary with respect to the relative liquidity of savings. More illiquid products – tied to time or goals – are generally viewed as helping people control their behavior through self-discipline. In contexts where other forms of discipline or belief are operating simultaneously, however, illiquidity might be tied to different temporal cycles or goal structures, such as religious ones. For example: A savings account structured to help people save toward a religious festival or pilgrimage would disburse a percentage of a pre-determined profit or interest payment based on how close the clients comes to the predetermined goal. Clients who reach their full goal receive 100% of the profit or interest payment, and special recognition on a wall or board placed near a religious site (modeled on existing haj savings accounts and Buddhist temple "donation walls" or "money trees" that record people's contributions to the temple and earn them "merit).





The land and the forest hold the most important value for the Konda Reddis studied by Thanuja Mummidi. The forest is a long-term savings account. State currency is seen as useful only for short-term obligations or for dealings with the state. It is the land that matters and endures.

Design Principle 5:

Change the Iconography, Design with Local Values.

Change the iconography of savings and/or state currency itself.

In marketing its new currency to the people of Papua New Guinea, the PNG government incorporated images of traditional shell valuables and birds whose feathers are important markers of renown. In contexts where state currency is imagined as being for short-term obligations, while land or natural resources like forests or cattle are imagined as being for long-term savings or insurance, incorporate imagery and emotional associations from the latter in order to market the idea of money itself. The FAO years ago promoted currency designs that promoted awareness of agricultural production. Alternative currencies like Ithaca HOURS similarly evoke value through iconography related to landscape features that are locally valued.







All over the world, livestock are often held as a standard of value – the measuring rod against which everything else is evaluated, even state-issued currency. Svetlana Tyukhteneva's project in Altai highlights the importance of dealing creatively with contexts where state currencies are *not* the universal standard of value.

Design Principle 6: Design for Convertibility.

- Create systems that work with, rather than against, different standards of value.
- Allow savings accounts in "cattle:" create notional currencies based on herds that can intermingle with state currency in one account.
- Encourage the commensuration of cattle or other wealth items with money through iconography, calculators, or games.
- Support people's use of livestock as a form of savings: often, it makes good sense!

Economists understand money as unifying several disparate functions: means of exchange (to buy and sell), method of payment (to settle debts or pay fees), store of value (to save wealth in a form that will not rot or decay) and standard of value (the measuring stick, the "price" that can be applied to all goods and services). Yet not all peoples accept the bundling-together of these functions in state-issued currency. They may not trust the state; they may not trust the currency; they may not accept the "abstraction" required to see value in paper or coin. What if the store of value function could be fulfilled by other standards of value, like livestock?





In most cases, they trade with Uganda. Actually at this time, because they are using the Uganda Shilling. Before the CPA was signed, it was easy, but right now you have the burden of selling in Sudanese Pounds. [One must] convert actually the [microloan] money first of all in dollars, then go into Uganda and get in Uganda Shillings and make your purchases. So whether you like it or not, you are going to convert your currency three times and will experience losses. So they will always complain....they want to find options out of this.

 An informant from Crystal Murphy Morgan's project, southern Sudan

Design Principle 7: Calculate Convertibility.

- Create systems that work with, rather than against, different scales of value.
- Create currency exchange calculators with a savings component built-in.
- Convert + "keep the change" in a savings account.

Border zones, conflict zones, remittance corridors, transnational migration circuits: not only do different standards of value co-occur; each is also measured according to a different *scale*.

Poor people use multiple scales of value: in one context, they measure value in equal increments, in terms of whatever standard they are deploying (one dollar, two dollars; one head of cattle; two heads of cattle). Scales intermingle all the time, especially where multiple currencies are in circulation (dollars and pesos) and the increment between one unit of each currency is different – the difference between one and two dollars is not equivalent to the difference between one and two pesos.





In many cases studied by IMTFI researchers, poor people measured items of value – including coins – in terms of units of volume. If coins are like grains, measured in bushels or packets, can savings products be designed that measure money not in terms of interval value but in terms of "cups" filled or "bundles" completed?

Design Principle 8:

Design for Volume, Not Increment; Design for "Enough."

- People measure in interval scales (one dollar, two dollars). But they also measure in ordinal or categorical scales ("enough" or "not enough)."
- Use collective measures like "herds" or volumetric measures like "cups," units within which there may be variability in the number of discrete objects. Design savings "bundles" or savings "pots" with a different number of discrete units of money within them.

Scales of value intermingle with each other depending on context and social use. A person might use an interval scale with one kind of person or transaction, and an ordinal or volumetric scale with another.

Designing new systems to account for these scales and their intermingling with one another may help re-frame how "savings" is presented to people: as saving discrete units, or as saving bundles or sachets with a range of units within them.

Imagine: A set of savings products differentiated by rank: special "cups" for people of higher rank. A technology that allows a client to visualize when they have saved "enough" without specifying a cash-equivalent amount.







IMTFI researchers found people using money in multiples of 2, 5, 8 and other "lucky" numbers in a variety of cultural contexts, from Africa to Asia and Latin America.

Design Principle 9: Lucky Numbers.

- In contexts where numerological practices are common, use them.
- New incentives or delivery channels for savings could be structured around local numerologies.
- Devise products that exploit these numerologies by helping people save toward a multiple of these special numbers or that spur people to avoid bad numbers.

Twos are important in several of the contexts studied by IMTFI researchers.

6s and 8s are important in areas influenced by Chinese culture while 1s, 4s, 7s and 14s are bad. In areas impacted by Chinese culture, money in auspicious denominations is given at New Years.

In Persian communities 2-dollar bills are given as gifts for New Year.







This Indonesian "Koin Emas Onkos Naik Haj" (Gold Coin for Pilgrimage Expenses) helps people save to go on the pilgrimage to Mecca. People buy the coins and save them. They are not easily convertible and can't be mingled with other money in a bank account. They also do not accrue interest, which is forbidden in Islam. Can the effect be replicated in a safer, more secure way in a tiered bank account?

Design Principle 10: Tranches and Tiers.

- Poor people's existing savings systems are often tied to multiple, intersecting and overlapping temporal cycles – seasons, ritual cycles, secular and religious calendars, the life cycle.
- New savings products can be pegged to one or several of these cycles in order to facilitate savings behavior.
- Create a two-tiered account: part of the savings is put toward the coming year's celebration or ritual obligation, but a percentage sequestered for the next year's celebration.

Such a system may aid in financial planning and literacy, as well as provide a separate store of capital to offset future debts.

Saving "toward" a goal, especially the end of a ritual cycle or an important marker in a life cycle, may be more effective than promoting "savings" in general, especially in contexts where people use non-incremental scales of value. That is, if people understand money as volumetric (enough or not enough), they will be unwilling to "save" since if there is "not enough," then there is nothing "left over" to save. But if people are taught to frame savings activity in terms of markers in a temporal cycle – putting away money to help meet a ritual obligation – their volumetric scales of value may help them meet that goal.





Birth and death, marriage and childbirth, rites of passage, voyages, ritual cycles, secular calendars, work days and seasonal harvests, lean days in the megacity for Mani Nandhi's rickshaw pullers (pictured below right): people are caught up in scores of intersecting and overlapping temporal cycles. Money can be sequestered within those cycles, creating savings accounts for special purposes that are removed from the "big bucket" of static funds and set in motion along distinct trajectories.

Design Principle 11: Design for Cycles.

- Tie savings account use to prestige and special cyclical events.
- Recognize the rationality of these cycles: buying large numbers of flowers to put on graves in southern Mexico (pictured at left) is not just a ritual obligation, but a way of demonstrating one's claim to one's ancestors' land – land that is an important store of value in times of need.

Numerous savings products have been explored that employ a lottery to encourage savings. This introduces an element of fun and chance.

Instead of a lottery, imagine a savings product that rewards people who meet ritual, religious or life-course savings goals and enhances a person's prestige in the community in the process. This may be especially relevant in cultural contexts where games of chance are forbidden.





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