

Chapter Five



THE PRICE OF MONEY

IN THE SPRING of 2007, the Mexican microfinance bank Banco Compartamos completed a highly successful public offering of its stock. Inspired by Grameen Bank, Compartamos had grown rapidly while keeping its focus on a customer base of low-income women. By 2008, Compartamos served over one million customers, using its profits to fuel expansion. In some corners, this was cause for celebration, a vindication of the commercial possibilities of banking in poor communities. But for others the success story was marred by the high interest rates that Compartamos charged its customers. A widely read study reported that, on average, Compartamos's interest rates exceeded 100 percent per year. Of that, customers paid 15 percentage points to value-added taxes, 24 percentage points went to profits, and the rest covered the basic costs of making loans.¹

Muhammad Yunus, the founder of Grameen Bank, was outraged. His concern aligns with the broadly felt sense that programs for the poor should not take advantage of customers' vulnerability and lack of options. Moneylenders may charge 100 percent per year or more, critics like Yunus argue, but microfinance institutions are not moneylenders. Yet Grameen Bank, like its competitors, does not give away its services for free. It aims to charge reasonable prices for reliable services. In South Asia, interest rates tend to vary between 20 and

40 percent per year, well below the rates charged by Compartamos but well above giveaway levels. A study of nearly 350 microfinance institutions worldwide found that, after taking inflation into account, interest rates generally fall between 10 percent and 35 percent per year—again well below the interest rates of Compartamos.

Still, the same study found that those institutions serving the poorest customers face the highest costs of lending. Finance for the poor means dealing with lots of small loans and, when savings services are on offer, many small deposits. For providers, small-sized transactions mean limited scale economies and thus high costs per transaction. Out of necessity, “pro-poor” microfinance institutions tend to charge the highest interest rates of all; microfinance banks serving better-off customers tend to charge the least. Even if Compartamos had earned no profit and paid no taxes, their interest rates would have still had to be 60 percent per year to cover costs of their strategy for small-scale lending in Mexican villages and towns.²

Examples from the diaries confirm that interest rates on financial services for the poor can be very high. In South Africa, most moneylender rates run at about 30 percent per *month*. Even the Small Enterprise Foundation (SEF), a microfinance institution in South Africa with a long-term commitment to serving the rural poor in Limpopo Province, charges an effective interest rate of about 75 percent per year on its loans, but barely covers its costs after paying its staff and accounting for its own capital costs. Interest rates this high sound usurious, perhaps, but borrowers report that local moneylenders, who charge much more, will only lend them much smaller amounts of money. If it were forced to charge much less, SEF would have to rely on donors to a greater extent, and it is far from clear whether donors would be willing to support SEF's operation indefinitely.

For good and bad, then, when it comes to finance for the poor, no issue sparks disagreement as quickly as prices. Prices are important but hard to get a handle on, and we devote this chapter to them.

The financial diaries provide new evidence on the prices paid by poor households, and the ways that households make choices about them. In general, we find that households *are* willing to pay prices that are high when compared to those routinely paid by the better off.

Some economists have attempted to explain the poor's capacity to pay high prices by noting the high return on capital found in micro-businesses.³ However, this does not explain why households also seem willing and able to pay high rates on consumption loans.

Part of the answer lies in the differences in the way that loans and savings are structured for the poor compared to the wealthy. This makes accurate comparisons difficult, and requires we look at prices from a fresh perspective. As a result, some of our findings will sound surprising. For example, there are good reasons why poor people *pay* to save, even though richer households typically expect banks to pay *them* interest on deposits. We also find moneylenders demanding high interest rates but then settling, ultimately, for a different price, often lower but sometimes higher than their stated rate. Moreover, chapter 2 showed that households are as likely to pay no interest at all for loans (usually offered by relatives and neighbors) as they are to pay annualized interest rates equivalent to 100 percent and more to the local loan shark. Nothing about this or other research suggests that poor households are insensitive to price, but then nothing suggests that price is the overriding concern when they seek financial services.⁴

The polarized positions on the debate over microfinance interest rates are based on distinctions and assumptions that are not always borne out in our data. Pricing is not a simple and transparent matter, and prices actually paid often differ from stated prices. On balance, our findings tend to support the view that legislation restricting interest rates would be counterproductive for pro-poor providers. Price caps would undermine the work of institutions like SEF that fill gaps and open opportunities for households with limited financial options.

Pricing's Complex Origins

In the world of the better-off, interest rates, more than anything else, determine where to borrow and where to save. Why pay 5.2 percent for a mortgage when another bank will give it to you at 5 percent? Or save at 4 percent per year, when another institution will give you

6 percent? Economic theory places price at the absolute center of financial decision-making.

The cost of financial services is important for the poor, too, but it is more difficult to understand how these services are priced. Modern rich-country providers have made huge strides in reducing "transaction costs"—the costs of using an instrument other than the financial cost of the funds used. But transaction costs for poor people usually remain high. They may include the time taken to stand in a long queue, the emotional cost of having to deal with unhelpful, stone-faced tellers, the cost of the bus ride to reach the bank, or the sheer number of lenders who must be persuaded to part with their money before a usefully large sum can be amassed. In the case of some informal transactions, there may be obligations to the lender other than repaying the loan along with interest—to work for some days at a low wage, for example. Price, then, can only take the limelight when multiple other conditions are met, not just large numbers of suppliers in competition, but an operating environment that assumes basic infrastructure, public goods, and a market in which customers "shop" equally.

Among the hundreds of loans recorded in the financial diaries, there are many that appear to have been taken for similar uses but at widely differing nominal interest rates, maturities, and default/rescheduling rates. Similar heterogeneity characterizes savings and insurance contracts. Digesting this data suggests several insights that help us to understand pricing of financial services for the poor.

An immediate insight is that interest rates may often be better understood as *fees* for a service than as a *rate* for the use of money for a specific period. Bankers typically express interest rates in annual terms—that is, a given percentage per year—even when the loan is taken for just a few months or for longer than a year. The APR (annual percentage rate) helps customers compare prices against the same yardstick.⁵ That can be useful, but the diaries also show that converting a flat fee on a one-week loan for a small amount of money to an APR, and then comparing it to the APR for a two-year business capital loan, misses the essence of the transaction, as we show in detail in the next section. A second set of insights is that prices adjust to

many factors: to personal relationships, to prior obligations between borrowers and lenders, and to the relative status of the partners, as well as the loan's value, maturity, purpose, source, and the likelihood of default. By taking into account data on how often loans are re-scheduled or forgiven, and how quickly they are repaid, we get a better sense of what prices mean in the financial lives of the poor.

Fees versus Interest Rates

In rich-world finance, the value of time is essential to investment decision-making. Interest rates represent the cost of losing an opportunity to invest money somewhere else for a given period of time. Financial managers of businesses use concepts like "net present value" (NPV) to help them decide whether to make an investment or not. Calculations such as these compare the expected revenues from an investment with what would be earned by simply placing the money in a less risky investment, like a money market account or a fixed deposit. A new machine costing \$1,000 that is expected to generate revenues of \$1,100 for the next year is only worth buying if the added \$100 is more than could be earned by keeping the \$1,000 in the bank. In that way, the current interest rate environment strongly influences investment decisions.

Using concepts like NPV is central to first-world savings and lending, since every day that your current investment does not pay you interest, an alternative investment might have. Attention then focuses not only on the interest you earn each day, but also on the interest earned on that interest—the compounding of interest earnings. Bank savings, for example, will often compound on a daily basis, so waiting a day to withdraw your savings will earn you interest on the interest you earned the day before. In our own personal financial dealings, we also behave somewhat as businesses do: if we can borrow at 5 percent to earn a return of 20 percent, then that's a good deal because we've earned a net gain of 15 percent.

However in the financial environment of the poor, money and time are not so closely associated. Interest is rarely compounded;

sometimes it remains the same flat fee until you repay the loan, even if you've paid back some of the principal. For example, in South Africa, the typical interest rate on loans from moneylenders is 30 percent per month, which would translate into an effective APR of 2,230 percent on the full balance, due to interest paid on interest as a result of compounding.⁶

But such a calculation fails to take into account two common features. First, South African moneylenders rarely use compound interest. This makes their interest rates easier to understand and calculate. It can also favor borrowers who pay slowly. A customer who failed to pay anything toward his loan would owe interest of only 30 percent of the principal alone, not 30 percent of the principal plus outstanding interest.

Second and conversely, the moneylenders don't adjust interest to take into account early repayment, in full or in part. This means that customers paying early or on time pay higher rates than those paying late. In "rich-world" banking, late payers are penalized since they incur costs in additional interest. But for many poor borrowers, it may be more accurate to treat financial returns and costs as flat fees rather than rates that accumulate fees over time.

Seeing interest rates as a fee rather than an interest rate goes some way to helping us understand why households are sometimes happy to pay what we might consider to be astronomically high interest rates. We saw that in some examples given in the first chapter: a poor person may sensibly pay 50 cents to borrow \$10 for a day or so to tide her over a problem, even if the annualized rate calculates to more than 500 percent. The absolute outlay is just not that great, even if the percentage rate is astronomical. Later in this chapter we show another example when we discuss rates paid for Jyothi's savings-collection service.

Stated Prices versus Actual Prices

Using these insights, we sought a more coherent picture of interest rates of the loans in the financial diaries. We looked at 57 examples of moneylender loans from the South African diaries database. For each

loan, we knew the principal that was borrowed and the cash flows that serviced the loans. These loans had a quoted monthly rate, but, unlike formal loans, borrowers did not pay back on a regular monthly basis. They paid back with very irregular cash flows, perhaps paying a bit before the month was up, then a bit more two months later, and then finally paying off the loan after another two weeks, depending on when they themselves would receive cash from other sources. Interest charges would be adjusted or negotiated on an equally irregular basis. So the nominal rate of the loan doesn't tell us what price borrowers actually pay for a loan. To get a better sense of that, we borrow from the financial management concept of net present value (NPV) mentioned above, and use a related tool—the internal rate of return (IRR). The IRR is the interest rate that sets the NPV equal to 0. In the absence of any knowledge about the rate of return that is appropriate in the NPV calculation, financial managers use IRR to estimate the rate from the cash flows.

From our cash-flow data, we can calculate the IRR of each loan in the sample. First, we calculate a daily IRR and then multiply by 30 to get a monthly IRR. The average stated interest rate on these loans was 30 percent per month. But because they were not compounded, the monthly IRR on the cash flows turned out to be quite different from this stated interest rate.

In all three areas of the South African sample, the monthly IRR is above the average stated interest rate of 30 percent per month. So the flatness of the fee structure works against these borrowers rather than for them. In one of the urban areas outside of Johannesburg, the monthly IRR is considerably above the nominal rate. This is because many of these respondents borrowed for only a few days or a week from a moneylender but paid interest for the full month. Proximity to Johannesburg means that a relatively large number of these households have regular jobs with larger incomes and regular cash flows, so they are able to settle debts more quickly.

On average then, interest rates are high. But if we stopped our analysis there, we would be left with the incorrect assumption that interest rates are astronomically high for all loans. What this aggregate assessment conceals is that the IRR drops dramatically as the

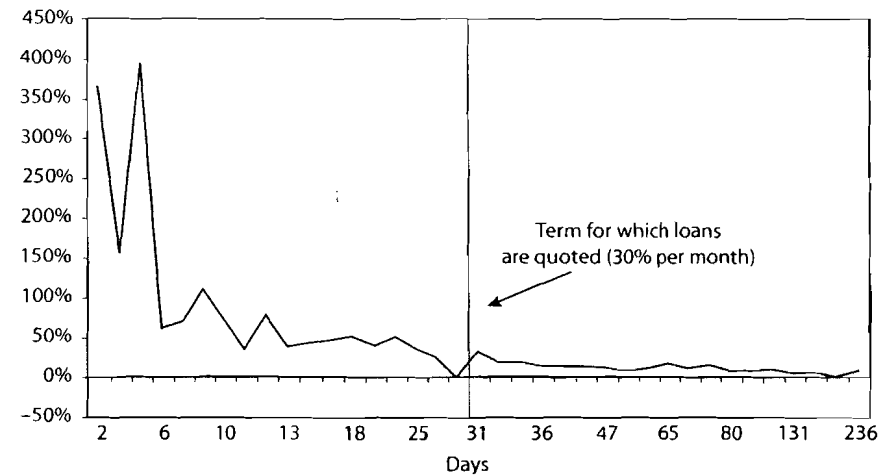


FIGURE 5.1. Monthly internal rate of return of moneylender loans by days to maturity (percent).

term of the loan increases. Figure 5.1 shows this more clearly. All of these loans are implicitly priced as if they are one-month loans. So when a loan is taken for just a few days, the interest rate paid is still 30 percent of the principal, even though the loan was not held for an entire month. So, as we saw, for short loans the monthly IRR is very high indeed (up to almost 90 percent per month!) But because interest is not compounded, the IRR declines steadily with the lengthening of the period over which the loan is held. As soon as the loan has been held for more than a month, the IRR drops dramatically from 30 percent to 17 percent. With a term of three months, the monthly IRR is down to 8.3 percent.

Despite the inherent attractiveness of paying a loan back late under this structure, 33 of the 57 loans considered for this analysis were paid back *before* the month was up. Why would anyone pay money back early when doing so implicitly raises the interest rate? We look to our understanding of portfolio management among the poor for reasons. In chapter 2 we saw that cash-flow timing is at the forefront of most households' considerations when managing their portfolios. Often these loans are taken when money is not readily available but is expected soon. When it comes, the loan is cleared. In this way, we can consider these loans as functioning more as a tool of

cash-flow management than long-term financing. Another thing that we know about the financial lives of the poor, from chapter 3, is that lives are risky, and borrowing from a variety of sources is a common way to face emergencies. In order to borrow, though, you need to maintain a good state of creditworthiness. You want to clear debt quickly in case you need another loan. Last, note that the loans in this South African sample are small relative to income. On average, they were for \$35 each, less than 10 percent of the average monthly income in these areas. The price of such a loan at the nominal rate of 30 percent per month would be \$10. This is 2 percent of average monthly income for the households in South Africa. Holding back repayment to achieve a cheaper implicit rate on their loans does not make practical sense for these households. Better to pay back the loan as soon as the money is available in order to clear the debt and keep the option open to take another loan should the need arise in the future.

As loans get bigger relative to income, repayment gets stretched out over more days. In this process the rate of interest declines, particularly as loans are rescheduled. Our India research team carried out a survey of three moneylenders operating in west Delhi and found evidence of frequent rescheduling.⁷ At first glance, the *stated* interest rates charged by moneylenders (ranging between 61 percent and 700 percent when annualized) appear extremely high. However, the *actual* rate of interest comes down dramatically once the repayment period is considered. One branch manager of an informal moneylending business described his clients' behavior. "Half of the poor clients drag the repayments on a one-month term loan up to 90 to 100 days. Most delinquencies occur when the clients are away visiting their villages." Of each 100 poor clients, five are likely to default completely, he told us. "We follow up at the most for three months beyond the scheduled loan period. We try to renegotiate the installment size [making it smaller], but in the end the whole business runs on trust and there's no other means to recover our money."

We saw an example of this behavior when one of our Indian diarists, Mohammed Laiq, borrowed five interest-bearing loans over the research year. In March he took \$32 from a professional moneylender to pay for house repairs. For Mohammed Laiq, whose average

monthly income is a little over \$40 and irregular, this was a significant loan. The stated repayment schedule was 75 cents per day for a period of 50 days, of which 11 cents was interest. This equates to a very high annual interest rate of about 125 percent. However, the repayments didn't happen in the way they were scheduled. By early July he'd paid 27 days, and by early August, a further 8 days. In late September, he still had \$8.50 to pay. It was not until mid-February, more than 330 days after he took the loan, that he cleared the debt. However, he still paid interest only on 50 days, not 330 days. This translates into an annual interest rate of about 19 percent, far better than the onerous 125 percent per month he was quoted.⁸ He explained to us that he repaid the loan in "batches of days," generally giving \$4–\$6 at a time, with long gaps in-between. Mohammed Laiq said that the moneylenders don't worry about the gaps—they expect it and it's nothing to them. We might express this in another way: repayment delays are factored into the nominal price, with the effect that the customer who repays on time pays the highest price. This inverted pattern of incentives can be seen as one of the more unsatisfactory aspects of informal loan finance.

Pricing for Profit—or to Minimize Exposure?

It is important to remember that moneylenders are often as much part of the community as their clients, which makes forgiveness and rescheduling even more likely.⁹ Moneylenders who feature in the South African diaries are often simply better-off people in the neighborhood. In Bangladesh also, there are very few professional moneylenders who lend for a livelihood. Most so-called *mahajans*, the Bengali word most often translated as "moneylender," are simply "big persons," wealthier people who lend as much out of obligation as out of profit-motivation; this may often be why they are willing to have interest rates negotiated downwards. Indeed because the government-owned commercial banks rarely lend to the poor, *professional* lending to poor people for profit in Bangladesh is done best and most often by microfinance institutions.

In India, professional moneylenders are more prevalent and, like Mohammed Laiq's creditor, are regularly forced to reschedule problem loans. But it is the intermittent lenders, those doing it for a favor or out of a sense of obligation, who show more willingness to forgive the monthly interest rates stated at the outset. In the Bangladesh and Indian diaries, interest stated at the outset was paid in full in less than half of all the private interest-bearing loans reported.¹⁰ In a third or more of all loans, the interest was discounted, forgotten, forgiven, or ignored, and in the remaining cases the position over interest remains unclear. In South Africa, in addition to the 57 moneylender loans we discuss above, we also tracked a total of 45 loans taken from ASCAs (accumulating savings and credit association, a kind of saving club described in chapter 4). The South African moneylender loans were frequently rescheduled, although in only five of the 57 cases was the interest forgiven entirely. However, in ASCA loans, where the lenders were better-off members of the community, interest was forgiven much more frequently—in 13 of the 45 loans.

It is difficult to predict when negotiation on a troubled loan will work and when it won't. Ronakul is a very poor older man in our Bangladesh sample, whose seven-member household lives off irregular earnings of about \$68 per month from casual factory jobs and selling vegetables. He had poor health and ended up with significant debt from his medical expenses. As long ago as 1997, when he had severe jaundice, he borrowed a very large sum totaling \$400 from several creditors at the high price of 20 percent per month. He has never repaid a penny in principal or interest. The creditors, local slum-dwellers like him, press him from time to time, but he tells them, "I'm too ill and poor to pay anything." In 1998 and 1999, he took three more loans, of \$40, \$40, and \$20 respectively, at 10 percent per month, from three local housemaids, and has similarly repaid nothing. The three women regularly gave his long-suffering wife Razia a tongue-lashing. Too poor to pay off these big debts, the couple did attempt to negotiate a deal during the research year, agreeing to repay the principal if the interest were forgiven. But they paid nothing.

In that case negotiation failed, but our research shows that it often succeeds. Salam, one of our urban respondents in Bangladesh, is

slightly better off than Ronakul, supporting a family of eight on a monthly income of about \$97. He had a three-year-old debt of \$160 at 10 percent a month when we met him, on which he had paid nothing, so that the interest debt alone had risen to \$180. During the research year he successfully negotiated a deal under which he agreed to pay \$120 in interest (which he did) and repay the principal at some later date with no further interest. Sattar, from another urban Dhaka household, had taken a loan of \$300 when his son broke his leg in 1997. He had made some payments on it, but in the research year the creditor told him "Okay, that's enough—just repay the \$120 principal still outstanding, but you needn't pay any more interest."

Sandeep from Delhi had a three-year-old loan when we met him, taken to build a house in the village. At the start of our research, \$85 of the original \$340 was still outstanding, charged at a rate of 5 percent per month. Gradually he revealed that he'd paid about \$426 for the first 18 months, at which point the lender had said he'd paid enough interest and the balance, of around \$277, was now interest-free.

Discounting or forgiving, on the evidence from our study, depends on the relationship between borrower and lender. In Delhi, we came across a community (from southern Maharashtra) whose members frequently played the role of intermittent lenders to other members of their own community, on the same standard terms of 40 percent annual interest. As long as the interest was paid annually, the principal, we learned, was often carried over for several years. When some members lent to poorer neighbors outside of their own community, they did so at the higher rate of 10 percent per month.

So for sizable loans with longer terms, it is common to see a high stated cost that is later negotiated down. From a lender's point of view, this has two benefits. First, it acts as a deterrent—if I state a high price, maybe the would-be borrower (whom I know to be poor and likely to have difficulties repaying) won't take the loan, or will take less. Second, it assures me that I will get some early return on the loan: if I manage to get 10 percent a month for the first three months but then earn nothing more, my overall rate for the term of the loan as a whole may still be positive. Many microfinance institutions charge

up-front fees on their loans for similar—and good—reasons. It is an obvious way of reducing risk.

Microfinance Lending

Within this environment, how have the microcredit institutions adapted? In Bangladesh, where they collect loan interest along with repayments at weekly intervals, they and the formal banks are the only providers that earn interest on a consistent basis. Following Grameen, most microlenders in Bangladesh and many others worldwide charge interest on a “flat” rate, in which principal and interest payments are included in weekly installments of a fixed unvarying size. This is not quite the same as the method used in formal banking to keep the monthly installments on home mortgages the same every month. In a mortgage repayment schedule, the share of the installment represented by principal and interest varies each month, with the interest share dropping and the principal share rising as the loan is progressively paid off. The microlenders’ system starts with the assumption that borrowers are going to stick to the schedule, so they “simplify” matters by making the share of principal and of interest in the installment each week consistent. For example, a 1,000-taka loan is repaid in 50 installments of 22 takas, in which 20 are principal and two are interest. If the borrower departs from the schedule, Grameen and some other microlenders scrupulously recalculate the interest on a declining balance basis at the end of the loan—a task that keeps Grameen workers, armed with calculators rather than computers, sitting late into the night at the branches—and then return overpayments to, or collect underpayments from, their borrowers. Other microlenders are more cavalier, and, like the South African moneylenders, do not precisely calculate interest on the number of days before the loan is repaid, leaving those who repay ahead of schedule at a disadvantage. But Bangladeshi borrowers are beginning to notice these discrepancies, and increased competition is driving the micro-lending industry toward fairer and more consistent practices.¹¹

Because they collect weekly, the Bangladesh microlenders’ share of reported interest earnings is high: all in all they earned about \$436 from our sample households in the year, a 39 percent share of all such interest reported earned on a mere 15 percent share of total transaction values. Private interest-bearing loans in Bangladesh took interest erratically, but because they charge higher rates, they nevertheless took slightly more than the microlenders—\$446—and they did it on a smaller share—10 percent—of total transaction values. Although moneylender interest rates were clearly higher than those of the microlenders, we cannot easily use these numbers to make a precise comparison, because of variations in loan term lengths. Microlender loans had longer stated terms, but a bigger proportion of moneylender loans were overdue and not collecting interest, effectively reducing the rate charged. On balance, their effective private interest rate may have been about twice that of the microlenders’, a far cry from popular claims that moneylender rates are out of proportion to those in the formal banking sector.

From the Saver’s Point of View

Even after adjustments for late or nonpayment, interest rates on loans to poor people are undoubtedly high relative to average interest rates in developed financial markets. But surely that tells us something about the investment opportunities in these slums and townships. If returns are so high, surely someone must be making a killing.

We thought we may have figured who, halfway through the South African study. We realized that when some diarists spoke about taking a moneylender loan, they were in fact referring to loans taken from members of ASCAs, like those described in chapter 4. Suddenly our instinctive mental picture of the lender shifted from that of the “evil moneylender” to that of a group of conservative neighborhood ladies trying to pool their savings together and earn the highest interest rate possible. When we learned that ASCAs and moneylenders charged similar interest rates, we had to think through

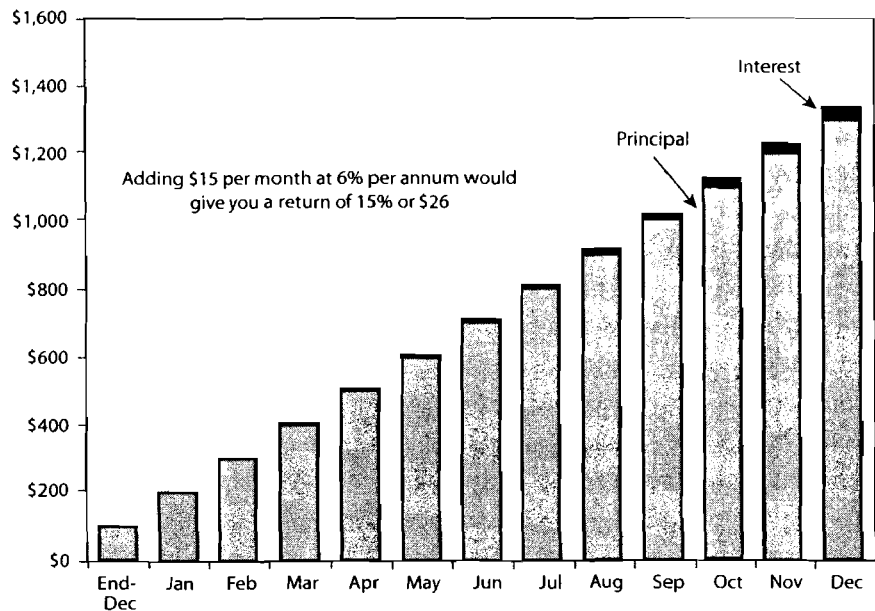


FIGURE 5.2. Accumulating savings with bank interest rate, assuming monthly savings of \$15. US\$ converted from South African rand at \$ = 6.5 rand, market rate.

the possibilities of this from the saver's point of view. Usually members would put a relatively small amount, such as \$15, into their ASCAs each month. Then, during the same monthly meeting, they would be required to withdraw an amount of money that they would lend on to their neighbors, friends or family. They would charge interest of 30 percent per month. We had visions of hedge-fund-like rapid appreciation.

Let's say you decided that you were going to put aside money every month in a bank account. You put \$15 in a savings account that gives you a generous interest rate of 6 percent per annum, and you continue to save \$15 each month in the same account. Figure 5.2 shows the accumulation of your savings. By the end of the year, your balance is \$26, or 15 percent, more than the net value of your combined deposits to date.

Now let's say that you save with an ASCA that is charging borrowers a much larger 30 percent per month. With the same monthly

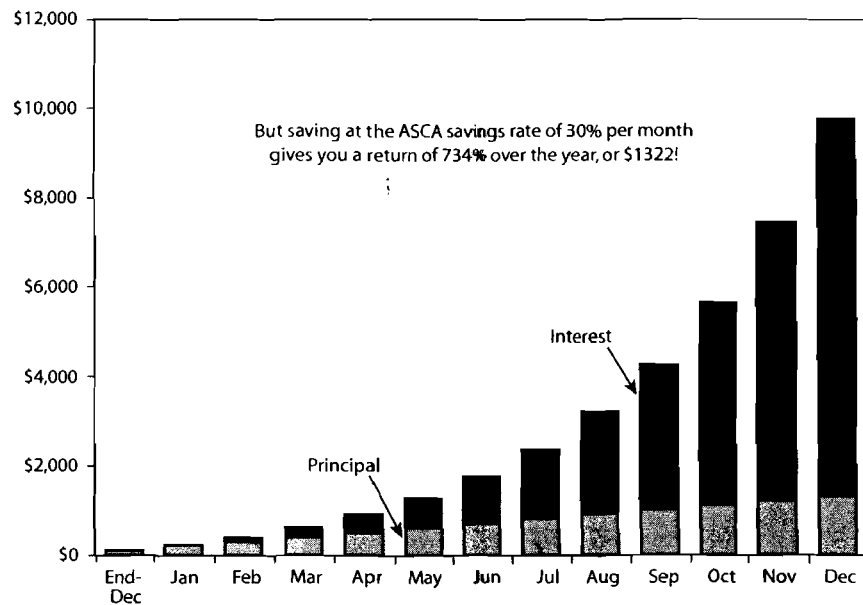


FIGURE 5.3. Accumulating savings with ASCA interest rate, assuming monthly savings of \$15. US\$ converted from South African rand at \$ = 6.5 rand, market rate.

payment of \$15, and provided that all the borrowers pay you back on time and with the full interest, your balance at the end of the year will be a hefty 734 percent more than your combined net deposits over the course of the year, generating an extra \$1,322 you didn't have before! Figure 5.3 (whose vertical scale is very different from that of figure 5.2) shows this.

However, to achieve this rate of return on savings requires that each loan be paid back within a month, which is rarely the case. First, many borrowers take more than a month to repay, and interest charges are not compounded over time, as the calculations in the bank example are. Second, some borrowers may not pay back at all, forcing the ASCA members to dip into their own pockets to pay principal and interest, reducing the net return.

In the South African financial diaries, we counted 21 ASCAs that had one or more of our respondents as members, and which lent out money in this way. Most charged interest of 30 percent per month.

However, not all of the funds were lent out all of the time, and some loans were not paid back. In the loans that were given, there was a high rate of loss or forgiveness of both principal and interest. When we calculated the monthly internal rate of return for these ASCAs, we found it was only 1 percent per month. This is a higher rate than a bank would give, but it was far less than the 30 percent per month nominally charged to borrowers.

In the previous chapter we recounted in some detail a good example of one of these ASCAs. Sylvia's ASCA relied on its members lending out money at high rates of interest. But when we tracked the ASCA through our diary interviews, we found that the borrowers often paid late or not at all, which caused the effective rate of return on ASCA lending to plummet. Sylvia and her ASCA had fallen foul of repayment risk, a risk that is endemic in the financial sector and that even sophisticated markets have failed to hedge away completely.

The returns, then, are often not as high as one might expect based on a stated interest rate, and as we see from Sylvia's story, the risks are high. This might explain why households are willing to tolerate zero interest rates on their savings, such as we see in most RoSCAs (other than auction RoSCAs). More important than the return being generated is reliability, security, and an appropriate structure that works with the particular cash-flow timing of the household.

An example from India shows us just how important these elements are to the poor saver. Jyothi works in the southern city of Vijaywada and was described in an earlier book by one of our authors.¹² Jyothi is a middle-aged woman living in the slums she served, and her service consisted simply of walking round the slum each day collecting small deposits from her customers, most of them housewives. She gave them a crude passbook, just a card divided into 220 cells made up of 20 columns and 11 rows, so that savers could keep track of their progress. When all 220 cells were ticked off, Jyothi returned the savings to the value of 200 of the 220 cells, holding back the remaining 20 cells' worth as her fee for her service. Thus someone depositing a total of \$44 with her, at 20 cents a day, would get back \$40. If we consider this 20-cell fee as interest, and we assume a growing

balance as 220 deposits are made over 220 days, then Jyothi is effectively paying her customers a negative rate on the savings—*minus* 30 percent a year.¹³ Put this fact to the savers and they will tell you to forget your fancy calculations: the fact is that they needed their \$40 to ensure that they could pay school fees to keep their children in class for another year. With husbands earning irregularly, the only sure way to build up this sum was to take pennies from the housekeeping money each day and hand it over to Jyothi. It costs them only \$4 to form the \$40, and Jyothi did all the work. Taken within this context, this is a reasonable price to pay to build badly needed savings.

It would be easy to assume that Jyothi is earning monopoly profits: if she had more competition from (better) suppliers, she'd surely have to bring her rate down. Who, then, might these competitors be? Probably, organized brand-name deposit collectors, such as Sahara and Peerless, that are widespread in India. Such service providers pay, rather than charge, interest (4–6 percent in 2001) for an otherwise very similar service, though for longer terms.

But, counterintuitively, residents' degree of comfort and control with Jyothi may be higher than with regulated brands such as these. Brands like Sahara and even the state-run LIC rely heavily on agents paid commission to reach out to and take full responsibility for customers. This model, with its incentive structure, is highly efficient but leaves the brand and its reputation vulnerable to the behavior of agents. Indian diarists recounted stories of loss and cheating. Two of our respondents had personally lost money to Sahara agents, and at least one to an LIC agent in the recent past.

These cases were over and above a major loss that befell our Indian rural site two years before we arrived. A company that had registered under new legislation simply disappeared from the area after accumulating large sums through a variety of savings products. Four of the Indian rural respondents had lost money this way.

But there is another risk too, the risk that customers bear when their savings are invested in markets that are distant and about which they have very little information. Feizal, whom we met in chapter 3, had a son who, despite his family's financial difficulties, managed to

make payments to a contractual savings scheme offered by a new company in the area. When we went to meet the company's managers, they told us that the savings collected were invested in debentures issued by small companies based in the state capital. We watched nervously as the company changed its name twice and rumors circulated that it was about to close shop. Unlike these companies or, rather, their agents, Jyothi is local, visible, and has social ties with her clients. Thus she has an incentive to treat her customers well and a disincentive to make off with the principal.

Jyothi's customers were not victims of a local money illusion. Around the world we find similar systems that have been going for generations. Perhaps best known are the West African examples, which have become known collectively, if rather loosely, as *susus*, after the name used for them in Ghana.¹⁴ They take many forms, but a common one is used by market traders, who hand a fixed amount each day to a "susu collector," and take the money back at the end of each month less one day's worth. Again, this means that customers earn a negative interest rate, but again this is a small fee to pay for a service that efficiently bundles a month's worth of daily savings into a usefully large lump sum, servicing the traders' constant requirements for capital to buy inventory.

Notice something else about savings collectors that sheds further light on the pricing of informal products, even on how we should define them. Most of Jyothi's customers, and virtually all *susu* customers, repeat their savings regimes cycle after cycle. They get into a rhythm in which during each cycle they pay in a series of small amounts and take out one big amount. If that series of cycles began, years back, with the lump sum, we would call each cycle, technically, a loan: but if it began with the small sums we would call it savings. But five years later, the distinction is meaningless. Those of us not familiar with this fact of life fall into a conceptual trap: \$4 on \$40 over 220 days doesn't sound too bad as a loan interest rate, but minus \$4 on \$40 sounds unbelievable as a savings rate. In Vijaywada, there are customers who simply didn't distinguish between deposit collectors and moneylenders, so similar is the service provided. Both offered repeated money-accumulation cycles for a fee.

Conclusions

The chapters thus far have uncovered a diversity of financial relations and devices used by the poor. Sylvia, one of the South African respondents, for example, holds in her portfolio not only her ASCA but several non-interest-paying RoSCAs, a low-interest bank account and a savings plan for her daughter. The lending ASCA is the high-risk, high-return part of her portfolio, but one that is hedged by other less risky instruments that fulfill different cash-flow planning needs. In this, Sylvia was behaving like many of our diarists. In South Asia, diarists held an average of nine different kinds of instruments, of varying levels of risk. It seems that, just as we wouldn't want to invest our entire retirement portfolio in hedge funds, the poor use different instruments that serve different needs in an attempt—not always successful—to balance their portfolios.

Such diversification means that households hold both interest-bearing and interest-free borrowings in their portfolios, simultaneously. Why don't households try to borrow as much as possible interest-free and save as much as possible with interest? One reason, which we discussed in chapter 2, is timing. While one might have several helpful friends and relatives willing to lend interest-free, they might not have the cash available when one needs it. Or one might already have borrowed from them.

But another reason hinges on what price really means to customers. In this chapter, we've explained the reason why context matters when considering the price of money in poor areas. It is easy to assume that the main reason behind high interest rates is the risk of doing business with low-income people.¹⁵ But there are several other reasons why the price of money is high: the short-term nature of lending, the relatively small size of the principal, the lack of compounding interest, and the flexibility of arrangements. Not only is price only part of the picture, but price itself adjusts to many other factors.

The diversity of poor people's portfolios, then, comes about partly because the right kinds of providers are thin on the ground, and this

helps to explain the astonishing demand for those services that approximate the needs of the poor. Because formal service providers have been wary of the potential markets in slums, townships, and villages (perceiving high default risk and the need for high interest rates to compensate), the scarcity of reliable providers continues. Such service providers deny an opportunity to themselves as well as to these poor communities. If they were to aim for larger scale, with better systems and technology, they could surely drive down their costs: microfinance providers have amply demonstrated that.

But would they also drive down prices generally, giving the moneylenders a run for their money? In Bangladesh, the arrival of widespread microfinance has driven down prices, but not quite in the way that was anticipated. Advocates of microfinance hoped that moneylenders would be forced to reduce their rates. They haven't, but an increasing share of a growing total of lending is being done by microfinance institutions, so the average price of borrowing has declined.

Moreover, throughout these chapters we have shown that informal financial services, though extremely valuable, are not always reliable. Formal service providers, which are more often set up with an eye toward sustainability, are arguably more reliable than informal service providers. And reliability is a key characteristic of the types of financial services that the poor need.

What is the nature of this unreliability with respect to price? First, informal service providers lack transparency because of the differences between stated and renegotiated contracts. While this provides some flexibility—an attribute highly valued by poor users, as we have shown—it also requires and invites special efforts by clients to secure more lenient terms, so such flexibility itself comes at some cost. Those paying late, for example, nonetheless withstand threat and anxiety. And, of course, not everyone can negotiate effectively, so customers are rarely treated on equal terms. Second, informal provision has built-in incentives to drag out repayments, punishing good clients and rewarding bad. While this structure can perhaps be viewed as a kind of distributive justice (profits are made from those with, rather than those without, the money available), it is one of the reasons why moneylenders remain restricted in scale and limited to poor and

high-risk markets: since they do not reward “good” clients who have capital, they are likely to attract “bad” and cash-strapped clients disproportionately. Third, most informal interest-bearing loans are troublesome to arrange, in spite of their price. So there is an additional transaction cost that is not reliably priced for every borrower or perhaps even for the same borrower over time.

Poor households care about price, but they also care about convenience and flexibility and are willing to pay for those features. They are also happy to pay for reliability of the sort that Jyothi provides, and they are agreeably surprised when they find reliability combined with a relatively low price, as they do, increasingly, at microfinance institutions. Convenience, flexibility, and reliability are at the heart of building workable financial tools for the poor, and are a key to understanding the economic lives of poor households more broadly. Just as we found no households truly living hand to mouth—even among the very poor—we found no households so absolutely limited in their resources that price was the overriding determinant of financial choices.