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**Daryl Collins, Jonathan Morduch, Stuart Rutherford & Orlanda Ruthven:
Portfolios of the Poor**

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Chapter One



THE PORTFOLIOS OF THE POOR

PUBLIC AWARENESS of global inequality has been heightened by outraged citizens' groups, journalists, politicians, international organizations, and pop stars. Newspapers report regularly on trends in worldwide poverty rates and on global campaigns aimed at halving those rates. A daily income of less than two dollars per person has become a widely recognized benchmark for defining the world's poor. The World Bank counted 2.5 billion people in this category in 2005—two-fifths of humanity. Among these 2.7 billion, the poorest 1.1 billion were scraping by on less than one dollar a day.

For those of us who don't have to do it, it is hard to imagine what it is like to live on so small an income. We don't even try to imagine. We suppose that with incomes at these impossibly low levels, the poor can do little for themselves beyond hand-to-mouth survival. Their chances of moving out of poverty must depend, we assume, either on international charity or on their eventual incorporation into the globalized economy. The hottest public debates in world poverty, therefore, are those about aid flows and debt forgiveness, and about the virtues and vices of globalization.¹ Discussion of what the poor might do for themselves is less often heard. If it's hard to

imagine how you would survive on a dollar or two a day, it's even harder to imagine how you would prosper.

Suppose that your household income indeed averaged two dollars or less a day per head. If you're like others in that situation, then you're almost surely casually or part-time or self-employed in the informal economy. One of the least remarked-on problems of living on two dollars a day is that you don't literally get that amount each day. The two dollars a day is just an average over time. You make more on some days, less on others, and often get no income at all. Moreover, the state offers limited help, and, when it does, the quality of assistance is apt to be low. Your greatest source of support is your family and community, though you'll most often have to rely on your own devices.

Most of your money is spent on the basics, above all food. But then how do you budget? How do you make sure there is something to eat and drink every day, and not just on the days you earn? If that seems hard enough, how do you deal with emergencies? How can you be sure that you can pay for the doctor and the drugs your children need when they fall sick? Even without emergencies, how do you put together the funds you need to afford the big-ticket items that lie ahead—a home and furniture, education and marriage for your children, and some income for yourself when you're too old to work? In short, how do you manage your money if there is so little of it?

These are practical questions that confront billions every day. They are also starting points for imagining new ways for businesses to build markets that serve those living on one or two or three dollars per day. They are obvious starting points as well for policymakers and governments seeking to confront persistent inequalities.

Though these questions about the financial practices of the poor are fundamental, they are surprisingly hard to answer. Existing data sources offer limited insights. Neither large, nationally representative economic surveys of the sort employed by governments and institutions like the World Bank, nor small-scale anthropological studies or specialized market surveys, are designed to get at these questions. Large surveys give snapshots of living conditions. They help analysts count the number of poor people worldwide and measure what they

typically consume during a year. But they offer limited insight into how the poor actually *live* their lives week by week—how they create strategies, weigh trade-offs, and seize opportunities. Anthropological studies and market surveys examine behavior more closely, but they seldom provide quantified evidence of tightly defined economic behavior over time.

Given this gap in our knowledge and our own accumulating questions, several years ago we launched a series of detailed, yearlong studies to shed light on how families live on so little. Some of the studies followed villagers in agricultural communities; others centered on city-dwellers. The first finding was the most fundamental: no matter where we looked, we found that most of the households, even those living on less than one dollar a day per person, rarely consume every penny of income as soon as it is earned. They seek, instead, to “manage” their money by saving when they can and borrowing when they need to. They don’t always succeed, but over time, even for the poorest households, a surprisingly large proportion of income gets managed in this way—diverted into savings or used to pay down loans. In the process, a host of different methods are pressed into use: storing savings at home, with others, and with banking institutions; joining savings clubs, savings-and-loan clubs, and insurance clubs; and borrowing from neighbors, relatives, employers, moneylenders, or financial institutions. At any one time, the average poor household has a fistful of financial relationships on the go.

As we watched all this unfold, we were struck by two thoughts that changed our perspective on world poverty, and on the potential for markets to respond to the needs of poor households. First, we came to see that money management is, for the poor, a fundamental and well-understood part of everyday life. It is a key factor in determining the level of success that poor households enjoy in improving their own lives. Managing money well is not necessarily more important than being healthy or well educated or wealthy, but it is often fundamental to achieving those broader aims. Second, we saw that at almost every turn poor households are frustrated by the poor quality—above all the low reliability—of the instruments that they use to manage their meager incomes. This made us realize that if

poor households enjoyed assured access to a handful of better financial tools, their chances of improving their lives would surely be much higher.

The tools we are talking about are those used for managing money—financial tools. They are the tools needed to make two dollars a day per person not only put food on the dinner table, but cover all the other spending needs that life puts in our way. The importance of reliable financial tools runs against common assumptions about the lives and priorities of poor families. It requires that we rethink our ideas about banks and banking. Some of that rethinking has already started through the global “microfinance” movement, but there is further to travel. The findings revealed in this book point to new opportunities for philanthropists and governments seeking to create social and economic change, and for businesses seeking to expand markets.

The poor are as diverse a group of citizens as any other, but the one thing they have in common, the thing that defines them as poor, is that they don’t have much money. If you’re poor, managing your money well is absolutely central to your life—perhaps more so than for any other group.

Financial Diaries

To discover the crucial importance of financial tools for poor people, we had to spend time with them, learning about their money-management methods in minute detail. We did so by devising a research technique we call “financial diaries.” In three countries, first in Bangladesh and India and a little later in South Africa, we interviewed poor households, at least twice a month for a full year, and used the data to construct “diaries” of what they did with their money. Altogether we collected more than 250 completed diaries.² Over time the answers to our questions about how poor households manage money started to add up and reinforce each other—and, importantly, they meshed with what we had seen and heard over the years in our work in other contexts: in Latin America and elsewhere in Africa and Asia.³

We learned how and when income flowed in and how and when it was spent. Looking at poor households almost as one might look at a small business, we created household-level balance sheets and cash-flow statements, focusing our lens most sharply on their *financial* behavior—on the money they borrowed and repaid, lent and recovered, and saved and withdrew, along with the costs of so doing. Our understanding of these choices was enriched by the real-time commentary of the householders themselves. We listened to what they had to say about their financial lives: why they did what they did, what was hard and what was easy, and how successful they felt they had been. It was, surprisingly, the tools of corporate finance—balance sheets and cash-flow statements—that offered the structure with which we could begin to understand what it takes, day by day, for poor households to live on so little.⁴

Purchasing Power and the Finances of the Poor

So far we have discussed the challenges of living on one or two dollars per day, in keeping with the well-known poverty benchmarks set by the Millennium Development Goals of the United Nations.⁵ These dollars-per-day-per-person figures are specially calculated and take some explaining.

They are adjusted to capture the fact that the cost of living varies between countries; that is, a dollar goes farther in Delhi, Dhaka, or Johannesburg than it does in New York. The standard “market” exchange rates used at the bank or airport to convert between dollars and rupees, takas, or rand do not always adequately capture that fact. So adjustments are made by the UN using a set of conversion factors known as “purchasing power parity” (PPP) exchange rates. The PPP-adjusted dollars attempt to account for the greater purchasing power in the countries we study than market rates would imply.

Calculating the PPP conversion factors has been a major research project in itself, housed at the World Bank International Comparison Program, and the numbers continue to be refined.⁶

In our context, one limitation of the PPP factors is that they are based on lists of goods and services meant to reflect the consumption patterns of the entire population of each country, rich and poor. The lists include purchases of cars, computers, restaurant meals, and the like. Here, though, we are interested in the purchasing power of the poor specifically. This is of particular concern given the high degree of inequality between rich and poor in South Africa.

Fortunately, a new set of “Poverty PPP” conversion factors, focused on the goods and services typically purchased by lower-income households, is being calculated, though it is not yet available. Because we lack Poverty PPP numbers, we chose to stick with market exchange rates for the remainder of this book. The average market exchange rates at the time of the Bangladesh, India, and South Africa financial diaries were 50 Bangladeshi takas per US dollar, 47 Indian rupees per US dollar, and 6.5 South African rand per US dollar.

To give a sense of how PPP-adjusted dollars would differ from the market rate dollars used in the book, table 1.1 provides two sets of conversion factors.

Table 1.1 Purchasing Power Parity Comparisons

<i>Sample (and study year)</i>	<i>Comparison year</i>	
	<i>1993</i>	<i>2005</i>
Bangladesh (1999–2000)	2.67	2.88
India (2000–2001)	3.69	3.75
South Africa (2004–5)	1.96	1.72

Note: The ratio of the value of \$1 in PPP terms relative to the value of \$1 exchanged at market exchange rates.

The top right cell of the table shows, for example, that when in the text we discuss \$1 held by our Bangladeshi households, that \$1 could actually buy what it would take \$2.88 to buy in the United States (in the 2005 reference year). This ratio is helpful to keep in

mind—even though we have reservations about the appropriateness of applying these specific national-level conversions to our samples.

Using market exchange rates avoids two other complications. First, the Millennium Development Goals were set based on dollars as valued in 1993. When UN documents discuss one-dollar-a-day poverty, they usually mean a dollar in terms of what it could buy in 1993. And, to add a second wrinkle, the international poverty line was set using the median poverty line of the 10 poorest countries in the world, which was not *exactly* one dollar per day, but \$1.08 (in 1993 PPP dollars). So in order to assess whether households are above or below the one-dollar-a-day line, we need to compare their inflation-adjusted PPP earnings to \$1.08. Likewise, the two-dollars-a-day line is actually \$2.15.

To provide a concrete example what it would be like to convert the earnings of the financial diaries households to dollar-a-day equivalents, consider Hamid and Khadeja's household (discussed below). They earn \$70 a month between the three members, calculated from takas using market exchange rates—that is, 50 takas equals US\$1 in 2000. Dividing by 30 yields \$2.33 per day, or \$0.78 per person per day. Multiplying by the number in the top left cell of table 1.1 (2.67) yields that \$0.78 is equivalent to \$2.08 when converted into 1993 \$PPP. Hamid and Khadeja thus fall just below the internationally recognized two-dollars-a-day poverty line.

Although we use market exchange rates to convert from local currency to dollars throughout this book, in appendix 1 we give further examples of how the financial diaries incomes match up against Millennium Development Goal benchmarks.

To get a first sense of what the financial diaries reveal, consider Hamid and Khadeja. The couple married in a poor coastal village of Bangladesh where there was very little work for a poorly educated and unskilled young man like Hamid. Soon after their first child was born they gave up rural life and moved, as so many hundreds of thousands

had done before them, to the capital city, Dhaka, where they settled in a slum. After spells as a cycle-rickshaw driver and construction laborer and many days of unemployment, Hamid, whose health was not good, finally got taken on as a reserve driver of a motorized rickshaw. That's what he was doing when we first met Hamid and Khadeja in late 1999, while Khadeja stayed home to run the household, raise their child, and earn a little from taking in sewing work. Home was one of a strip of small rooms with cement block walls and a tin roof, built by their landlord on illegally occupied land, with a toilet and kitchen space shared by the eight families that lived there.

In an average month they lived on the equivalent of \$70, almost all of it earned by Hamid, whose income arrived in unpredictable daily amounts that varied according to whether he got work that day (he was only the reserve driver) and, if he did get work, how much business he attracted, how many hours he was allowed to keep his vehicle, and how often it broke down. A fifth of the \$70 was spent on rent (not always paid on time), and much of the rest went toward the most basic necessities of life—food and the means to prepare it. By the couple's own reckoning, which our evidence agrees with, their income put them among the poor of Bangladesh, though not among the very poorest. By global standards they would fall into the bottom two-fifths of the world's income distribution tables.

An unremarkable poor household: a partly educated couple trying to stay alive, bring up a child, run a one-room home, and keep Hamid's health in shape—on an uncertain \$0.78 per person per day. You wouldn't expect them to have much of a financial life. Yet the diversity of instruments in their year-end household balance sheet (table 1.2) shows that Hamid and Khadeja, as part of their struggle to survive within their slim means, were active money managers.

Far from living hand-to-mouth, consuming every taka as soon as it arrived, Hamid and Khadeja had built up reserves in six different instruments, ranging from \$2 kept at home for minor day-to-day shortfalls to \$30 sent for safe-keeping to his parents, \$40 lent out to a relative, and \$76 in a life insurance savings policy. In addition, Hamid always made sure he had \$2 in his pocket to deal with anything that might befall him on the road.

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Table 1.2 Hamid and Khadeja's Closing Balance Sheet, November 2000

<i>Financial assets</i>	<i>\$174.80</i>	<i>Financial liabilities</i>	<i>\$223.34</i>
Microfinance savings account	16.80	Microfinance loan account	153.34
Savings with a moneyguard	8.00	Private interest-free loan	14.00
Home savings	2.00	Wage advance	10.00
Life insurance	76.00	Savings held for others	20.00
Remittances to the home village ^a	> 30.00	Shopkeeper credit	16.00
Loans out	40.00	Rent arrears	10.00
Cash in hand	2.00		
		Financial net worth	−\$48.54

Note: US\$ converted from Bangladeshi takas at \$1 = 50 takas, market rate.

^aIn the Bangladesh and Indian diaries remittances to the home village are treated as assets, given that for the most part the remittances entail debt obligations on the part of the recipients or are used to create assets for use by the giving households. In South Africa, remittances are treated as expenses given that they were mostly used to support the daily needs of family members living at a distance.

Their active engagement in financial intermediation also shows up clearly on the liabilities side of their balance sheet. They are borrowers, with a debt of \$153 to a microfinance institution and interest-free private debts from family, neighbors, and employer totaling \$24. They also owed money to the local grocery store and to their landlord. Khadeja was even acting as an informal banker, or “moneyguard,” holding \$20 at home that belonged to two neighbors seeking a way to keep their money safe from their more spendthrift husbands and sons. This does not mean that men are necessarily less responsible with money than women. Hamid himself also used a moneyguard, storing \$8 with his employer while waiting for an opportunity to send it down to the family home.⁷

Hamid and Khadeja's involvement in finance did *not* mean that they ended up with debts that they found impossible to manage. Although their “net worth” (the balance of their financial assets and liabilities) was negative, the amount was small relative to their total annual income, and their “debt service” ratio—the proportion of

their monthly income that they had to spend on servicing their debts—was manageable. Negative net worth was in fact quite rare in our sample: among the 152 households we studied in South Africa, only 3 percent were in this position. We should not assume, then, that poor households are always deeply in debt and always have negative net worth. The reasons for this phenomenon, and for many other aspects of balance sheets like Hamid and Khadeja's, are explored in more detail in later chapters, and are on show in the portfolios found in appendix 2.

Balance sheets like this one, however revealing, don't tell the story of how Hamid and Khadeja managed their money on a day-to-day basis. That story comes from studying cash flow rather than balances—from tracing the ebb and flow of cash into and out of savings and loan and insurance instruments. In the year that led up to the balance sheet, Hamid and Khadeja "pushed" \$451 of their income into savings or insurance or into loan repayments, and "pulled" \$514 out of savings or by taking loans or agreeing to guard money for others. That total turnover—\$965—is more than their total income for the year, which, at an average of \$70 a month, came to about \$840. So each dollar of income earned was subjected to \$1.15 of intermediation—of being pushed and pulled through financial instruments of one sort or another. This book reviews the recorded behavior and commentary of our 250 diarists to show how and why they intermediated as they did, and how and why better, more reliable instruments would help them do it more successfully.



In addition to saving, borrowing, and repaying *money*, Hamid and Khadeja, like nearly all poor and some not-so-poor households, also saved, borrowed, and repaid in kind. Khadeja, sharing a crude kitchen with seven other wives, would often swap small amounts of rice or lentils or salt with her neighbors. She would keep a note of the quantities in her head, and so would her partners in these exchanges, to ensure that their transactions were fair over the long haul. Virtually all of the rural Bangladeshi households followed the well-established

tradition of *musti chaul*—of keeping back one fistful of dry rice each time a meal was cooked, to hold against lean times, to have ready when a beggar called, or to donate to the mosque or temple when called on to do so. For rural respondents in India and Bangladesh, the intermediation of goods and services rather than cash was common, and included borrowing grain to be repaid after the harvest, repaying a loan with one’s labor, or using labor to buy farm inputs. We recorded much of this activity. But because our story is focused on how poor households manage *money*, we have focused our discussion only on those transactions where cash was involved.

We also tracked changes in physical assets, like livestock and land, and found them to be important in the portfolios of the poor. However, we noticed that most of the wealth changes over the year were in *financial* rather than physical wealth. For most of the households in the sample, we were able to track a “net worth profile,” including physical as well as financial assets, over time. We calculated the breakdown of net worth between financial net worth and physical assets for the median South African financial diaries household at the beginning of the study, in February 2004 and then at the end of the study, in November 2004. Physical assets certainly made up the larger proportion of net worth,⁸ thanks to the substantial stock of wealth most households hold in their homes and livestock.

However, we found that physical assets *changed* very little over the year. Livestock may have been bought or born, but they also died or were sold or eaten, and housing stock changed very little, leaving the overall physical wealth value essentially unchanged. The action was instead in financial assets.⁹ Taking a snapshot of household portfolios would have missed the dramatic change in financial assets and led us to mistakenly focus on physical assets as the more important part of net worth to understand. The data suggest that although households certainly can and do save in physical assets, financial management is the stepping-stone to understanding how households build net worth.

Following Hamid and Khadeja’s financial activity every two weeks allowed us to discover other types of behaviors, constraints, and opportunities that are not revealed in large, nationally representative

surveys. Partly this is because the diaries yield data of unusual quality on particularly hard-to-measure quantities. We uncovered activities that Hamid and Khadeja might not have thought to mention to a team completing a one-time survey—that they had credit with a shopkeeper, for example, took loans from neighbors, lent out a little to others, and stashed money in a hiding place at home for themselves and for others. Because these activities are “informal” and not written down, they are easy to overlook or hide, but Hamid and Khadeja’s diary data shows that these practices form a large part of their financial lives.

It was sobering, then, to find that we would have missed much of the action had we undertaken only single, one-time interviews of each household. Using the South African data, we did a “flow of funds” analysis—comparing all inflows to all outflows of money in each time period for each household—and found that, in the earliest interviews, we were often missing more than half of a household’s financial activity in a given week. It took roughly six rounds of interviews and visits before we felt confident we had something close to the full story.¹⁰ It took time for our respondents to trust us, and it took time for us to fully comprehend information that came piecemeal and was expressed in language colored by assumptions that we didn’t at first understand.

But those fragments of data eventually resolved into yearlong movie reels that changed our understanding. The frame-after-frame views revealed much greater levels of financial activity than large surveys usually show, and much more active management of finances. Without the pieces, it would have been easy to imagine that Hamid and Khadeja would be unsophisticated about their finances because they are only partially literate, or would be unable to save in a disciplined way because they are so poor. We might have blindly accepted arguments that they are especially eager for loans to run a small business, or that, if offered loans, they would fall rapidly into deep debt. Or we might have assumed that because money is tight, they would always demand rock-bottom prices.

All of those assumptions are right some of the time. But they are wrong much of the time. Uncorrected, they can mislead businesses

that plan strategies to work with households like Hamid and Khadeja's, and misdirect policymakers who design interventions to hasten their escape from poverty.

Portfolios

What explains Hamid and Khadeja's unexpectedly intense financial life? The best answer to that question came from the couple themselves, and from the many other poor householders who worked with us on the diaries. Khadeja told us, "I don't really like having to deal with other people over money, but if you're poor, there's no alternative. We have to do it to survive." When you live on a small, irregular, and uncertain income, we learned, just getting food on the table is hard to manage out of current income. Managing all of life's other expenditures out of current income is next to impossible. Whenever you need to make such an expenditure—repairing or rebuilding the family home, doctors' fees, a fan for the hot season, a new set of clothes for a festival or wedding—there are three common courses:

First, in the worst case, you may be forced to go without. This happens only too often, with consequences that threaten lives and wreck opportunities.

Second, you may be able to raise the money by selling assets, providing you have assets to sell and a buyer willing to pay an acceptable price.

Third, in the best case, you can use past income or future income to fund today's expenses.

The third course entails the decision to intermediate—the decision to save (to store past income that can be spent at a later date) or to borrow (to take an advance, now, against future income). More simply, it is the choice to set aside something out of current income that can be used to build up savings or pay down debt. Small incomes mean that poor people are more often than others placed in the position of needing to intermediate. The uncertainty and irregularity of their income compounds the problem by ratcheting up the need to

hold reserves, or to borrow when the income fails to arrive. For these reasons, we would argue that poor people need financial services more than any other group. Poor households with a pressing need to intermediate have to manage a collection of relationships and transactions with others—family, neighbors, moneylenders, and savings clubs, constituting a set of formal, semiformal, and informal financial providers—that can fairly be described as a portfolio.¹¹

Economists and anthropologists have built rich and independent literatures on the constituent parts of these portfolios. We now know quite a bit about how moneylenders set prices and how local savings clubs operate.¹² Economists have further contributed to understanding how well the pieces come together to smooth the ups and downs of household consumption.¹³ But what has been missing is a close look at how portfolios function: not just how well the pieces work but how they work together. Focusing on *how* gives new insight into the day-to-day nature of poverty and yields concrete ideas for creating better solutions for it.

So far, we have looked, briefly, at only one such portfolio—Hamid and Khadeja's. In all we worked with more than 250 poor and very poor households in both urban and rural locations in three countries. They lived in three slum locations in the Bangladeshi capital, Dhaka, and in three Bangladeshi villages; in three more slums in India's capital city Delhi and two villages in a poor north Indian state; and in two township sites, one outside Johannesburg and the other outside Cape Town, as well as in a remote village in the Eastern Cape of South Africa. The initial work in Bangladesh was done in 1999–2000 and involved a total sample of 42 households. This was quickly followed by a slightly bigger sample of 48 households in India in 2000–2001, and then by a much larger sample of 152 households in South Africa in 2003–4.¹⁴ In addition, we returned to Bangladesh in 2003–5 for a set of 43 diaries, using a slightly different format in order to investigate the financial lives of microfinance clients.

Appendix 1 shows that some of the financial diaries households in South Asia and in rural South Africa were poor by the one-dollar-a-day definition used in the Millennium Development Goals, and many others by the two-dollars-per-day definition, although we also

took a number of households who fell above this line but lived close by and shared the lifestyle and culture of their poorer neighbors. The South African sample allows insight into the financial lives of better-off households in low-income communities, in the urban sample especially. In the South African urban samples, few live on average incomes of less than \$2 a day, and about 40 percent of them live on more than \$10 a day. These urban households, however, remain on the fringes of the urban economy and are poor or very poor by local standards.¹⁵ In appendix 1 we describe the design and execution of the financial diary work, and give data on the study sites and the range of occupations, incomes, and demographics of the households we worked with. The portfolios in appendix 2 provide a further sense of the kinds of people, environments, and livelihoods that we encountered.¹⁶

Small, Irregular, Unpredictable

It would be wrong to claim that Hamid and Khadeja's is a "typical" portfolio of the poor. This is not just because we selected our households from 14 locations in three countries on two continents, but also because we encountered a very wide range of behaviors involving many financial devices and services that don't appear in Hamid and Khadeja's case. These financial devices were used in a myriad of combinations with varying degrees of intensity and a wide range of values and prices serving an endless list of needs and objectives. Therefore, we cannot claim that the behavior of our 250 households is typical of poor households throughout the world. Nevertheless, it is striking how many commonalities we found among our households, despite the differences in their environments.

Every household in our 250-strong sample, even the very poorest, held both savings and debt of some sort. No household used fewer than four types of instrument during the year: in Bangladesh the average number of different types of instruments used was just under 10, in India just over eight, and in South Africa, 10. These numbers refer to the *type* of instruments used: the number of times these

instruments were used in the year was of course much greater. In Bangladesh, for example, the 42 households between them used just one instrument—the interest-free loan—almost 300 times in the year. In all three countries total cash turnover through instruments was large relative to total net income: in Bangladesh and India it ranged between 75 percent and 330 percent of annual income, and in South Africa reached as high as 500 percent for some households. Some instruments seem universal: almost every household borrowed informally from family and friends, and many, including the very poor, reciprocated by offering such loans to others. Certain kinds of savings clubs and savings-and-loan clubs were found in all locations in all three countries, though with local variations. We heard the same themes over and over again when we asked our households to comment on what they were doing: many of the diarists told us they found informal transactions unpleasant but unavoidable; many, like Khadeja, also said they wished they had better ways to save.

Of all the commonalities, the most fundamental is that the households are coping with incomes that are not just low, but also irregular and unpredictable, and that too few financial instruments are available to effectively manage these uneven flows. It is a “triple whammy”: low incomes; irregularity and unpredictability; and a lack of tools. In the villages, farmers earn the bulk of their income during two or three peak harvest months, earning nothing during troughs. Farm laborers get a daily wage when there’s work to do; at other times they sit around idle, migrate to towns, or scratch a living from other sources. In the cities and urban townships, self-employed folk like Hamid have good and bad days. Women’s paid work in the town, such as maidserving, is often part-time, occasional, or temporary. Unless they are very fortunate, even full-time, permanently employed poor people suffer at the hands of employers who pay irregularly. Grant recipients, of whom there are a large number in the South African sample, suffer when the grants arrive late—as they did twice in one year in one township because of rioting. Payment once a month may also be an inconvenient interval at which to receive money: we discovered devices used by grant recipients to package two month’s worth of grants into a single sum or, conversely, to break a month’s

grant into smaller, more frequent installments. As we noted at the outset, the reality of living on two dollars a day is that you don't literally earn that sum each day; instead, your income fluctuates up and down. If you did earn a steady two dollars per day per person, you could plan more easily and enter into more fruitful relationships with financial partners. Lenders, for example, tend to be much more willing to advance loans against a regular flow of income.

These facts made us see how policy perspectives on poverty can hamper understanding. The "dollar-a-day" view of global poverty powerfully focuses attention on the fact that so much of the planet lives on so little. But it highlights only one slice of what it is to be poor. It captures the fact that incomes are small, but sidelines the equally important reality that incomes are often highly irregular and unpredictable. Dealing with unpredictability is an intellectual and practical challenge, one that must be well managed if welfare and futures are to be safeguarded.

Hamid and Khadeja kept track of their transactions in their heads, like many of the poorly educated or illiterate diarists, but their records were accurate. When we asked how they managed to do this when so many transactions were ongoing, Khadeja said, "We talk about it all the time, and that fixes it in our memories." One of their neighbors remarked, "These things are important—they keep you awake at night."

For all the households we came to know through the diaries, living on under two dollars a day requires unrelenting vigilance in cash-flow management—strategies to cope with the irregularities of income. Short-term cash-flow management is vital to ensure that the family doesn't go hungry, and chapter 2 takes a closer look at how the diary households manage this basic task.

Coping with Risk and Raising Lump Sums

Longer-term money management in poor households, we found, is associated in particular with two other concerns. The first is how to cope with risk. The households we met live lives that are far more

uncertain than those in better-off circumstances. The diarists are, as a group, less healthy, live in neighborhoods with weaker security, and face income volatility tied to the swings of local supply and demand, no matter whether they are employed or self-employed or are small-scale entrepreneurs. Those sources of uncertainty pile on top of others: in urban Bangladesh, slums can be cleared without warning; in India, crops fail when the rainy season is late or short; in South Africa, the spread of AIDS makes mortality a concern even for the young and able-bodied. While some seem able to shrug it off, most adults in poor households, we found, experience occasional or chronic anxiety about these risks, and seek to mitigate them in every way they can, including managing their money. We explore this behavior in chapter 3.

The second concern around which longer-term money management revolves in poor households is the need to build or borrow usefully large sums of money, the subject of chapter 4. Hamid and Khadeja's rent had to be paid in a fixed total; Hamid's medicines meant bills owed to pharmacists; Khadeja needed to make up-front investments in thread and cloth to run her sewing business. Beyond that, the couple wanted better furniture for their room, and had ambitions eventually to own their own home. They had one child and were planning more, and they wanted their children to be well educated and healthy and to secure good jobs and marriages. Each of these events requires chunks of cash at a single moment.

We have just identified three needs that drive much of the financial activity of the poor households we met through the financial diaries:

1. *Managing basics*: cash-flow management to transform irregular income flows into a dependable resource to meet daily needs.
2. *Coping with risk*: dealing with the emergencies that can derail families with little in reserve.
3. *Raising lump sums*: seizing opportunities and paying for big-ticket expenses by accumulating usefully large sums of money.

These needs are so fundamental that they become the themes of the next three chapters of this book.

The Portfolio Perspective

The main categories of personal financial behavior—borrowing, insurance, and saving—are associated in our minds with the typical needs that they serve. Borrowing is associated with the financing of current opportunities and needs—to start or expand a business, perhaps, or to buy consumer durables. Insurance is linked with protection against risk, and saving with building large sums for the future. It would be tempting to imagine that the three topics described at the end of the last section would be principally about borrowing, then insurance, then saving.

In reality, life doesn't always allow us to match instruments with uses quite so neatly. We all know of cases where an insurance policy or a pension had to be unexpectedly cashed in to serve some unexpected need, for example. The poor households we met in the diaries were especially likely to combine many different kinds of instruments to achieve their needs, and this is one of the main reasons their portfolios turned out to be surprisingly complex.

For example, there are so many risks, resulting in so many emergencies, that it is unrealistic to expect poor households to contain them by means of the single financial strategy of insurance. Dealing with emergencies is so crucial that even where insurance is available to them, poor households often have to draw down savings and seek loans to make up the losses in full. Similarly, both saving and borrowing need to be deployed, often simultaneously for the same purpose, to manage cash flow on a day-to-day basis and to create usefully large lump sums.

However, within the broad categories of “saving” and “borrowing” there are important distinctions, and it is possible to associate certain kinds of saving and borrowing with specific needs. The kind of saving needed to manage day-to-day basics, for example, is different

from the kind of saving needed to raise usefully large sums. For the first kind, poor households seek to keep money in places that they can access freely and frequently, both to maximize the amount they save and to ensure that they can retrieve the savings at short notice. Security is important, but so is convenience. Reward (in the form of interest receivable) is of less importance: thus they may hide savings at home or entrust cash to their next-door neighbor.

When households try to build savings into large sums, the mix of characteristics shifts. Now security is very important, since the money may have to be stored for some time as it builds, and reward is valued more highly. But a new characteristic enters the mix—structure. The poor, like all of us, tend to want to have their savings cake and eat it, but when you're more hungry than average, the temptation to eat it is all the stronger. Structure—in the form of curbs on the liquidity of the savings, and rules defining the term, timing, and value of deposits—helps self-discipline, as the poor often know. Hamid and Khadeja are not unusual in holding their tiny total savings in a range of instruments with different mixes of characteristics, including an insurance savings plan that requires fixed monthly premiums.

Similarly, the three drivers of need may cause the poor to approach different kinds of lenders who offer loans that vary in value, term, price, repayment structure, and availability. Sometimes local informal lending, which tends to be interest-free, will be best for day-to-day management, but on the other hand it may also make sense to take a larger loan from a more formal lender in order, say, to buy a stock of food if it can be stored safely at home. The diaries show that in Bangladesh, for example, bigger loans often come from microfinance institutions, but sometimes diarists deliberately choose a more expensive moneylender because the looser repayment schedule fits their needs better, or because the money *must* be found quickly after an emergency has struck or a not-to-be-missed opportunity has arisen.

This is not to suggest that poor households are blessed with an abundance of choice when they are deciding where to place savings or where to seek a loan: unfortunately, that is almost never the case.¹⁷ But to the extent that they have choice, they exercise it.

Perplexing Prices

These insights come from considering the financial activities of poor households as *portfolios* composed of a mix of instruments, and then tracking those mixes over time to discover how they were deployed. We would not have spotted them if we had just looked at how households use individual instruments, or looked at their mix of instruments at just one moment in time. We would have missed the way in which sums are “patched” together from an array of instruments, and we could not have fully appreciated the hopes and stresses that accompany this process, nor the play of intrahousehold relationships. For example, we wouldn’t have discovered that while Khadeja stores money for others, her husband chooses to keep some of his reserves out of her hands, storing it instead with his employer: Hamid confided to us that his wife disapproves of his habit of sending so much money to his parents’ village home, and might have sought to stop the cash going that way. The financial diary methodology forced us to confront our assumptions and take a fresh look at the financial lives of poor people.

This is especially so when it comes to understanding prices. Prices reflect both the demand for and supply of financial services, and economists have tried to understand prices by looking at both sides.¹⁸ Using our portfolios, we have been able to look closely at deals as they played out over *time* and at the social environment in which deals are struck, and we find that the pricing story is complex at an even more basic level than understanding supply and demand.

Some poor households pay fees for good ways to save—an idea that may be puzzling to those of us used to being paid interest on bank deposits, rather than having to pay for the service. Our surprise is amplified when the fees, interpreted as interest rates and expressed on an annualized basis, seem very high. Savers who use roving deposit collectors—the *susus* of West Africa are the best-known examples—generally save daily for a month and then get back, at the month’s end, all their deposits less one day’s worth. That’s a monthly rate of minus 3.3 percent, or minus 40 percent at an annualized rate. *Minus*

40 percent a year on savings? Can that be rational? But to a mother in a poor household saving 10 cents a day to ensure she can buy three dollars' worth of schoolbooks for her daughter before the school term starts next month, 10 cents is an eminently affordable fee. Where else can she be sure of getting the money out of temptation's way, and enjoy the discipline of having a collector call on her each day to make sure she saves?

As with savings, so with loans. Households pay finance companies and moneylenders amply for the chance to borrow. Top interest rates, expressed on an annualized basis, are the equivalent of 200 percent or more—astronomical relative to the kinds of charges levied by US or UK banks. According to the diaries, however, few of these “high cost” loans are actually held for a full year. In South Africa, for example, most are held for less than a month; some for just a week. The conversion into annualized interest rates allows us to compare interest charges on loans of different durations, and the year is a convenient standard. But the diaries show that the attempt to gain clarity by annualizing may distort the nature of the costs and choices.

For example, a 25-cent fee charged for a moneylender loan of \$10 for a week may sound quite reasonable even to Hamid the motor-rickshaw driver, who earns just \$2.33 per day and for whom a \$10 loan may mean the difference between being able to buy his son new clothes for the Eid festival and having him go to the mosque in last year's rags. But on an annualized basis (assuming compounding of the interest) such a loan costs 261 percent per year. That doesn't sound at all reasonable. One of the lessons from the diaries is that interest paid on veryshort-duration loans is more sensibly understood as a fee than as annualized interest. When researchers annualize all interest rates, they may be following standard accounting practices but distorting the real picture.

The adjustment works in reverse, too. For example, when policy-makers say, as they sometimes do, that microcredit providers offer a good price *as long as it beats the annualized interest rate charged by moneylenders*, there is something amiss. The diaries show that few borrowers would expect to pay the high moneylender rates for a relatively large, long-term loan. Annualized rates may not be the most

appropriate way to compare a large, yearlong microcredit loan with a small, short-term loan from a moneylender, and poor households may not be behaving irrationally if they sometimes choose the moneylender over the microcredit provider.

Other pricing conundrums are there to be looked at, as we do in chapter 5. Poor households may choose portfolio combinations that rich-country financial advisers would regard as odd. For example, they may be quite happy to take a loan—paying a high price for doing so—even when they could instead draw on their own savings accounts. That may sound odd when opportunities for secure saving are plentiful, but when it's hard to find a safe place to save, the perceived value of savings already made is that much higher. To give themselves security, the poor may even borrow in order to have something to save. Khadeja did just that. She spent part of a loan she took from a microlender (at about 36 percent interest for a yearlong term) to buy gold. The microcredit loan represented a rare opportunity to get her hands on a sum large enough to buy a substantial life-long asset offering security against the disruptions in family life so common and so painful for women like her—divorce, desertion, or death of her husband. She wasn't often given the chance to borrow in this way, so she thought it best to grab the opportunity at once. The fact that the loan could be repaid in a series of small weekly payments made it manageable: it allowed her to use a year's worth of small weekly savings to achieve a single big lump of savings. Price was only one aspect of the loan, less important than the repayment schedule that matched installments to the household's cash flow.

Reimagining Microfinance

The world is paying attention to the connections between poverty and finance as never before, and over the past decade the idea that poor households are “bankable” has been widely embraced. This transformation in thinking provides great hope for the households we came to know. Part of the credit goes to Muhammad Yunus, the Bangladeshi economics professor who, in December 2006, received

the Nobel Peace Prize for the work that he and the Grameen Bank have done over the last 30 years. The Grameen Bank proves that households like those in the diaries can save and borrow—and repay their loans promptly and with interest. By 2006, Grameen was serving over six million poor customers in villages throughout Bangladesh. Two competitors, ASA (Association for Social Advancement) and BRAC (a name, not an acronym), operate at similar scales and fully cover their costs by charging interest and fees. Early pioneers in Latin America and elsewhere in Asia have independently helped to lead this movement.

We weren't surprised to find that many households in the Bangladesh diaries were microfinance customers, and the diaries described in chapter 6 focus exclusively on them. By contrast, most of India's and South Africa's poor remain unserved by microfinance. However, in both countries there are efforts to bring microfinance and other financial services to low-income households. Grameen Bank "replicas" in India collectively reached 10 million customers in 2007, an increase of 3.1 million from the previous year. From the 1990s, India's social banking sector joined the movement, lending to groups of women organized in jointly liable "self-help groups," allowing India's banks to reach an additional 11 million families by 2005. More recently the Indian government has ordered banks to offer "no frills" accounts as part of its "financial inclusion" policy. These accounts reduce the paperwork needed to open an account and eliminate the minimum balance requirements that had previously kept poorer customers away. In South Africa, the pro-poor microfinance sector remains relatively small, although some groups are growing steadily.¹⁹ More importantly, the banking sector has an agreement with the government under the Financial Sector Charter to increase access for the poorest. The Mzansi account, a low-cost savings account offered by formal banks, is one result of this effort and was being launched just as we were wrapping up our financial diaries in South Africa.

One of our goals in launching the financial diaries was to revisit some of the main issues in the debate about providing financial access to the poor. Is credit the main need for financial services felt by poor households? Should the credit go exclusively to small enter-

prises, or can other ways of fighting hardship and lack of opportunity be identified? Should most of it be disbursed to women, organized into groups who share responsibility for each other's loans? Is making sure that everyone has a bank account enough to achieve that broader purpose?

When Yunus started Grameen, his focus was not on microfinance but on *microcredit*. Moving to microfinance from the narrower goal of microcredit begins with the recognition that poor households want to save and insure as well as borrow. Lately, Grameen itself, as we discuss in chapter 6, has taken up the cause of saving with energy and innovation. The financial diaries show in daily detail why the shift from an exclusive focus on microcredit to the broader microfinance is an important and welcome advance. But the diaries also show the need to push further.

The idea of microcredit has long been associated with the promotion of enterprise: to enable people to purchase productive assets and working stock to set up in business. Microcredit has thus come to be closely associated with the customers' "microenterprises" (the name signals their small scale; often such enterprises employ just the owner and no other workers.) When the turn toward microfinance opened possibilities, it did not entail a reassessment of the uses for microcredit. A fundamental but easily overlooked lesson from the diaries is that the demand for microcredit extends well beyond the need for just *microenterprise* credit. The poor households in the study seek loans for a multitude of uses besides business investment: to cope with emergencies, acquire household assets, pay schooling and health fees, and, in general, to better manage complicated lives. In chapter 6 we show that microcredit is often diverted from its intended uses (of running businesses) to other uses ranked more important by households. This lesson has not yet been well recognized by promoters of microcredit and microfinance.

Organizing borrowers into groups who pledge joint liability for each other's loans (also known as "social collateral") has been the chief mechanism to ensure repayment on unsecured loans to the poor. But microfinance institutions and banks are experimenting increasingly with small loans to individuals, disbursed against smaller

land parcels, deposits or liquid assets, or even against strong credit records already established. In this endeavor, they can learn from the cash flows of borrowers and the individual lending arrangements of the informal sector, reported in detail in these financial diaries.

Pledges to ensure that each individual has a bank account might be the first step toward an inclusive financial services sector. Promoting bank account outreach—even if it didn't help the poor to borrow, would surely enhance their access to a safe place to save and a simpler and cheaper way to move money around. But the Indian experience shows that developing the physical (branch) infrastructure of banks, and even pushing accounts and subsidized loans toward the poor, will not address issues of access unless products are *priced* to allow banks a good return, and *designed* to suit the lifestyle, income levels, and cash flows of the poor.

Reliability—on a Global Scale for the Poor

Whether or not the microfinance movement was right to stress loans for microenterprises, or has been too slow to embrace savings and other services, its greatest contribution is, to us, beyond dispute. It represents a huge step in the process of bringing reliability to the financial lives of poor households. For many poor people, having to deal with unreliable financial partners is just part of a general environment of unreliability that they must live with every day. Institutions that they interact with in other aspects of their lives are unreliable as well: the police and the courts, for example, or the health and education services.²⁰

Through their financial behavior, poor households show that they are impatient for better-quality services, inventive in bending such services to suit their own purposes, willing to pay for them, and longing for more reliable financial partners. Microfinance providers have made a determined start in responding to these demands, and now many others are joining in, urged on by an increasingly well-informed public.

It is hard to exaggerate the importance of these developments, which we saw clearly when we looked at microfinance through the eyes of Bangladesh diarists. Irrespective of how microcredit loans were used, borrowers appreciated the fact that, relative to almost all their other financial partners, microfinance providers were *reliable*. That is, the loan officers came to the weekly meetings on time, in all kinds of weather; they disbursed loans in the amount they promised at the time they promised and at the price they promised; they didn't demand bribes; they tried hard to keep passbooks accurate and up-to-date; and they showed their clients that they took their transactions seriously.

In return, we noticed that these Bangladeshi microfinance clients often prioritized the repayment of microcredit loans above those of other providers. That didn't surprise us. For poor households, as we have seen, financial lives are often uncertain. The income that provides the stuff of their financial transactions is small and often irregular and unpredictable, and most of their financial partners are not as reliable as they would like. When you need money, moneylenders may not have the funds to lend, and moneyguards may not be able to return your savings. Savings clubs may break up because of poor management, misunderstandings, or accidents that befall members. Money stored at home can be lost, stolen, or wasted on trivial expenditure. The poor deserve something better.

Could it be, then, that financial services will become the first globally reliable service that the world's poor enjoy? We hope the insights described in this book will help achieve that end.