PART II

Institutions

6

Barefoot Hedge-Fund Managers

Risk is a central fact of life for the poor, who often run small businesses or farms or work as casual laborers, with no assurance of regular employment. In such lives a bad break can have disastrous consequences.

In summer 2008, Ibu Tina lived with her disabled mother, her two brothers, and her four children ages three to nineteen in a tiny house in Cica Das, the vast urban slum in Bandung, Indonesia. The three younger children were at least nominally in school, but the oldest had dropped out. Her two unmarried brothers, a daily wage-earning construction worker and a taxi driver, kept the family from entirely going under, but there never seemed to be enough money for school fees, food, clothes for her children, and care for her aging mother.

Yet this had not always been Ibu Tina's life. When she was young, she worked in a garment factory. After she got married, she joined her husband's garment business. They had four employees, and the business was doing well. Their problems started when a business acquaintance they trusted gave them a bad check worth 20 million rupiah ($3,750 USD PPP). They went to the police. Policemen demanded 2.5 million rupiah in bribes even to agree to start investigating; after they were paid, they did manage to arrest the defaulter. He ended up spending a week in prison before he was released, after promising to repay what he owed. After reimbursing 4 million rupiah to Ibu Tina (of which the police claimed another 2 million) and promising to repay the rest over time, he disappeared and has not been heard from since. Ibu Tina and her husband had paid 4.5 million rupiah in bribes to recoup 4 million.

For the next three or four years, they tried very hard to bounce back and eventually managed to get a loan of 15 million rupiah ($2,800 USD PPP) from PUKK, a government lending program. They used the loan to start a garment-trading business. One of their first large orders was for shorts. They purchased the shorts from the garment makers and had them ironed and packaged for sale, but then the retailers backed off, leaving them with thousands of shorts that no one wanted.

The sequence of disasters put enormous stress on their marriage, and shortly after the second mishap, they got divorced. Ibu Tina moved in with her mother, bringing with her the four children and the stacks of shorts. When we met her she was still trying to recover from that trauma and said that she did not really have the energy to start again. She thought that when she felt better, she would open a small grocery shop in part of her mother's house, and maybe sell some of the shorts for Idur Fitri, the Muslim holiday.

To make matters worse, her eldest daughter needed a lot of attention. Four years earlier, when she was about fifteen, she had been abducted by a homeless person who lived next to their house. He released her after a few days, but the girl was traumatized by that episode and had stayed home since, unable either to work or go to school.

Was Ibu Tina particularly unlucky? To some extent, certainly. She thought that the abduction of her daughter was a freak accident (though even that situation had something to do with the fact that their house was near the railway line, where many homeless people lived), but she also firmly believed that her business misfortunes were symptomatic of the lives of small business owners.

THE HAZARDS OF BEING POOR

A friend of ours from the world of high finance always says that the poor are like hedge-fund managers—they live with huge amounts of risk. The only difference is in their levels of income. In fact, he grossly understates the case: No hedge-fund manager is liable for 100 percent of his losses, unlike almost every small business owner and small farmer. Moreover, the poor often have to raise all of the capital for their businesses, either out of the accumulated "wealth" of their families or by borrowing from somewhere, a circumstance most hedge-fund managers never have to face.

A high fraction of the poor run small businesses or farms. In our eighteen-country data set, an average of 44 percent of the urban poor have a non-agricultural business, whereas the fraction of the rural poor who report running a farm business ranges between 25 percent and 98 percent (the one exception is South Africa, where the black population was historically excluded from farming). In addition, a substantial fraction of these households also operate a non-agricultural business. Moreover, most of the land farmed by the poor is not irrigated. This makes farm earnings highly dependent on the weather: A drought, or even a delay in the rains, can cause a crop failure on non-irrigated land, and half the year's income might vanish.

Business or farm owners are not the only ones exposed to income risk. The other main form of employment for the poor is casual labor, paid by the day: Over half of those who are employed among the extremely poor in rural areas are casual workers. In urban areas, it is about 40 percent. When day laborers are lucky, they find jobs that last for several weeks or even a few months on a construction site or a farm, but often a job might just be for a few days or a couple of weeks. A casual worker never knows whether there will be a job when the current spell ends. If there is a problem with the business, these jobs are the first to be eliminated: It didn't take much time for Pak Solhin, whom we met in Chapter 2, to lose his job when fertilizer and oil prices went up and farmers cut back on labor. As a result, casual laborers tend to work fewer days in a year than regular workers, and a good portion of them work very few days in a year. A survey in Gujarat, India, found that casual workers worked on average 254 days per year (as against 354 for salaried workers, and 338 for the self-employed), and that the bottom one-third worked only 137 days.[1]

Big agricultural disasters, such as the Bangladesh drought of 1974 (when wages fell by 50 percent in terms of purchasing power and, according to some estimates, up to 1 million people died)[2] or food crises in Africa (such as the Niger 2005–2006 drought), naturally attract particular attention from the media, but even in "normal" years, agricultural incomes vary tremendously from year to year. In Bangladesh, in any normal year, agricultural wages could be up to 18 percent above or below their average levels.[3] And the poorer the country, the greater this variability. For instance, agricultural wages in India are twenty-one times more variable than in the United States.[4] This is no surprise: American farmers are insured, receive subsidies, and benefit from the standard social insurance programs; they don't need to fire their workers or cut wages when they have a bad harvest.

As if the vagaries of the elements were not bad enough, agricultural prices fluctuate enormously. There was an unprecedented rise in food prices from 2005 to 2008. They have collapsed during the global financial crisis, only to rise to the pre-crisis level over the last two years. High food prices should in principle favor producers (the rural poor) and hurt consumers (the urban poor). In summer 2008, however, a record year for the prices of both food and fertilizer, everyone we talked to in countries such as Indonesia and India felt that they were holding the short end of the stick: Farmers thought that their costs had increased more than their prices; workers complained that they could not find work because farmers were saving money; at the same time, city dwellers were struggling to pay for food. The problem was not just the level of prices, but also the uncertainty. Farmers, for example, who were paying high prices for fertilizer were not sure whether the price of their produce would still be high when they were ready to harvest.

For the poor, risk is not limited to income or food: Health, which we discussed in a previous chapter, is one major source of risk. There is also political violence, crime (as in the case of Ibu Tina's daughter), and corruption.

There is so much risk in the everyday lives of the poor that somewhat paradoxically, events that are perceived to be cataclysmic in rich countries often seem to barely register with them. In February 2009, the World Bank's president, Robert Zoellick, warned the world's leaders: "The global economic crisis [sparked by the collapse of Lehman Brothers in September 2008] threatens to become a human crisis in many developing countries unless they can take targeted measures to protect vulnerable people in their communities. While much of the world is focused on bank rescues and stimulus packages, we should not forget that poor people in developing countries are far more exposed if their economies falter."[5] The World Bank note on the subject added that with the drop in global demand, the poor would lose the market for their agricultural products, their casual jobs on construction sites, and their jobs in factories. Government budgets for schools, health facilities, and relief programs would be cut under the simultaneous pressure of reduced tax receipts and a collapse in international assistance.

In January 2009, we went with Somini Sengupta, then the *New York Times* correspondent in India, on a trip to Maldah, a rural district in West Bengal. She wanted to write a story on how the poor were affected by the global crisis. Sengupta, who grew up in California but speaks perfect Bengali, was told that a lot of the laborers at many construction sites in Delhi were from Maldah, and she knew that construction was slowing in Delhi. So we went from village to village, asking young men about their migration experiences.

Everyone knew someone who had migrated. Many of the migrants themselves were home for the month of Muharram, observed by many Indian Muslims. Everyone was happy to talk to us about migration experiences. Mothers told us about distant cities in southern or northern India, places like Ludhiana, Coimbatore, and Baroda, where their sons and nephews now lived and worked. There were of course some tragedies—one woman talked about her son who had died in Delhi of some mysterious disease—but the tone was overwhelmingly upbeat. "Are there jobs in the city?" Sengupta would ask. Yes, lots of jobs. "Have you heard of cutbacks?" No, no cutbacks in Mumbai, things are great. And so on. We went to the train station to see if anyone had come back after having lost his job. There we met three young men on their way to Mumbai. One of them had never been there; the others, veterans, were assuring him that finding a job was no problem. In the end, Sengupta never wrote the story about how the poor had suffered from the global downturn.

The point is not that construction jobs were not lost during the crisis in Mumbai—some surely were—but for most of these young men, the salient fact for the time being was the opportunity. There were still jobs to be had, jobs that paid more than twice what they could make in a day in the village. Compared to what they had endured—the routine anxiety about not getting any work at all, the seemingly interminable wait for the rains to come—life as a migrant construction worker sill seemed pretty attractive.

Of course the global crisis increased risk for the poor, but it added little to the overall risk they have to deal with daily, even when there is no crisis for the World Bank to worry about. During the Indonesian crisis of 1998, the rupiah lost 75 percent of its value, food prices went up 250 percent, and GDP fell by 12 percent, but rice farmers, who tend to be among the poorest people, actually gained in terms of purchasing power.[6] It was government employees and other people with relatively fixed cash incomes who ended up worse off. Even in 1997–1998, the year of the great Thai financial crisis, when the economy shrank by 10 percent, two-thirds of the nearly 1,000 people surveyed said that the main reason for the fall in their income was a drought.[7] Only 26 percent named loss of employment, and the job losses were almost surely not all a result of the crisis. For the most part, it seems that, once again, things were not a lot worse for the poor than in any other year, precisely because their situation is always rather bad. They were dealing with problems that were all too familiar. For the poor, every year feels like being in the middle of a colossal financial crisis.

Not only do the poor lead riskier lives than the less poor, but a bad break of the same magnitude is likely to hurt them more. First, a cut in consumption is more painful for someone who consumes very little to start with. When a not-so-poor household needs to cut back on consumption, members may sacrifice some cell phone minutes, buy meat less often, or send the children to a less expensive boarding school. This is clearly painful. But for the poor, a large cut in income might mean cutting into essential expenditures: Over the previous year, adults in 36 percent of the extremely poor households we surveyed in rural Udaipur District had to cut the size of their meals at some point. And cutting meals is something the poor hate: Respondents who had to cut

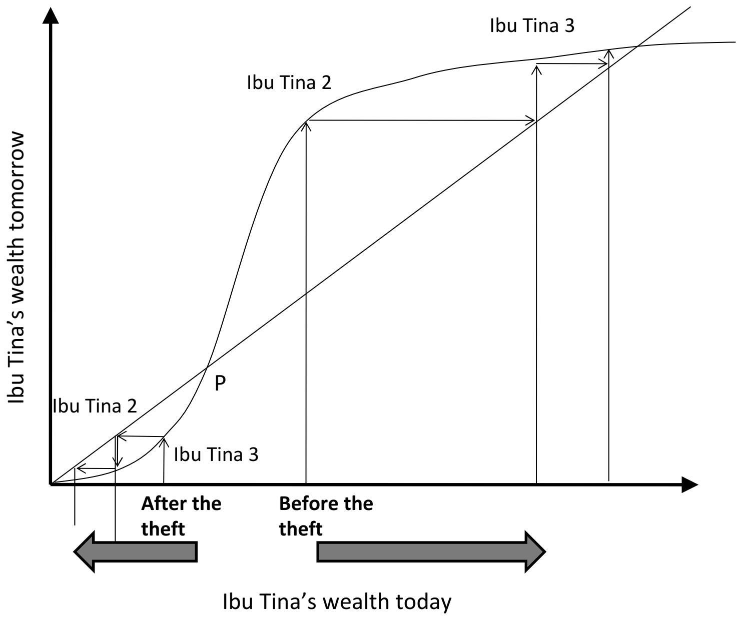

Figure 1: The Effect of a Shock on Ibu Tina's Fortunes

the size of their meals reported themselves to be much unhappier than those who did not need to do it.

Second, when the relationship between income today and future income is S-shaped, the effect on the poor of a bad break may actually be much worse than temporary unhappiness. In Figure 1, we have plotted the relationship between income today and income in the future for Ibu Tina, the Indonesian businesswoman.

In Chapter 1, we saw that there is the possibility of a poverty trap when investments pay off relatively little for those who can invest little, and more if they can invest enough. Ibu Tina was clearly in this situation. In her case, the relationship between income tomorrow and income today had an S-shape because her business needed a minimum scale to be profitable (in Chapter 9, we will see that this is a central feature of the businesses the poor run, so her case was not unique). Before the theft, she and her husband had four employees, and they had enough money to buy raw material and use their sewing machines and employees to make garments. This was very profitable. Afterward, all they could manage was to buy ready-made shorts and package them, an activity that was much less profitable (or not profitable at all). Before the debacle of the bounced check, Ibu Tina and her husband were outside the poverty-trap zone. If we follow their path over time, we see that they were on the trajectory to eventually arrive at a decent income. But the theft wiped out all their assets. This had the effect of moving them to the poverty-trap zone. Thereafter, they made so little money that they kept getting poorer over time: When we met her, Ibu Tina was reduced to living off her brothers' charity. One bad break in this S-shaped world can have permanent consequences. When the relationship between income today and income tomorrow is S-shaped, a family can plunge from being on a path to middle class to being permanently poor.

This process is often reinforced by a psychological process. Loss of hope and the sense that there is no easy way out can make it that much harder to have the self-control needed to try to climb back up the hill. We saw it with Pak Solhin, the onetime farm worker and now occasional fisherman in Chapter 2, and with Ibu Tina. They did not seem to be in the mental shape needed to pick themselves up and start over. In Udaipur we met a man who said in response to a standard survey question that he had been so "worried, tense, or anxious" that it interfered with normal activities like sleeping, working, and eating for more than a month. We asked him why. He said that his camel had died, and he had been crying and tense ever since. Somewhat naïvely perhaps, we then went on to ask whether he had done something about his depression (like talk to a friend, a health-care practitioner, or a traditional healer). He seemed irked: "I have lost the camel. Of course I should be sad. There is nothing to be done."

There may be other psychological forces at work as well: Facing risk (not only income risk but also the risk of death or disease) makes us worry, and worrying makes us stressed and depressed. Symptoms of depression are much more prevalent among the poor. Being stressed makes it harder to focus, which in turn may make us less productive. In particular, there is a strong association between poverty and the level of cortisol produced by the body, an indicator of stress. And conversely, the cortisol levels go down when households receive some help. The children of the beneficiaries of PROGRESA, the Mexican cash transfer program, have, for example, been found to have significantly lower levels of cortisol than comparable children whose mothers did not benefit from the program. This is important, because it turns out that cortisol directly impairs cognitive and decision-making ability. The stress-induced release of cortisol affects brain areas such as the prefrontal cortex, the amygdala, and the hippocampus, which are important in cognitive functioning; in particular, the prefrontal cortex is important in suppression of impulsive responses. It is therefore no surprise that when experimental subjects are artificially put under stressful conditions in the laboratory, they are less likely to make the economically rational decision when faced with choosing among different alternatives.[8]

THE HEDGE

What can the poor do to cope with these risks? A natural reaction when faced with a drop in wages or earnings is to try to work more. But this may sometimes be self-defeating. If all the poor laborers want to work more when times are bad (for example, because there is a drought or input prices have gone up), they compete with each other, which drives wages down. The situation is intensified if they cannot find a job outside the village. The result is that the same kind of drought has a more negative effect on wages in those villages in India that are more isolated, where it is harder for workers to go outside to look for work. In those places, working more is not necessarily an effective way of coping with getting paid less.[9]

If coping by working more after the shock hits is not really a good option, the best bet is often to try to limit exposure to risk by building, like a hedge-fund manager, a diversified portfolio, and it is clear that the poor invest a lot of ingenuity in doing so. The only difference is that they diversify activities, not just financial instruments. One striking fact about the poor is the sheer number of occupations that a single family seems to be involved in: In a survey of twenty-seven villages in West Bengal, even households that claimed to farm a piece of land spent only 40 percent of their time farming.[10] The median family in this survey had three working members and seven occupations. Generally, though most rural families have something to do with agriculture, it is rarely their sole occupation. This can be a way to reduce risk—if one activity falters, others can keep them going—though as we will see, there may be other reasons as well.

Holding multiple plots in different parts of the village, rather than one single large plot, also provides some risk diversification. When a blight or infestation hits one section of the village, other areas may escape; when the rains fail, the crops on plots with better access to groundwater have a better chance of surviving; and most surprisingly, different parts of the same village may actually have different microclimates, determined by exposure, slope, elevation, and moisture.

Temporary migration can also be interpreted in this light. It is relatively uncommon for an entire family to move together to the city. Usually, some members—mostly men and teenage boys in India or Mexico, but older daughters in China, the Philippines, and Thailand—migrate, while the rest stay behind. This ensures that the family's fortune does not rest entirely on one person's job in the city, while also allowing the family to maintain its village connections, which, as we will see, often turn out to be useful.

Another way the poor limit risk is by being very conservative in the way they manage their farms or their businesses. For example, they may know that a new and more productive variety of their main crop is available but choose not to adopt it. One advantage of sticking to the traditional technology is that farmers don't need to buy new seeds—they just save enough seed from last season's crop to replant—whereas the new seeds often cost a significant amount of money. Even if the new seeds repay the investment many times over when things go well, there is always a small chance that the crop will fail (say, because the rains don't arrive) and the farmer will lose the extra investment he has made in new seed.

The family is also used in creative ways to spread risk. Farming households in India use marriage as a way to diversify the "risk portfolio" of their extended families. When a woman moves to her in-laws' village after marriage, this creates a link between the household she came from and the household she married into, and the two families are able to call on each other when in trouble.[11] Farming households tend to marry off their daughters in villages that are close enough to maintain a relationship, but far enough away to have a slightly different weather pattern. In this way, if the rain fails in one village but not the other, they can help each other out. Another way to buy safety may be to have many children. Remember, Pak Sudarno had nine children to ensure at least one of them would take care of him.

All of these ways in which the poor cope with risk tend to be very costly. This has been well documented for agriculture: In India, poor farmers use farm inputs in a more conservative but less efficient way when they live in areas where rainfall is more erratic.[12] Poor farmers' profit rates go up by as much as 35 percent when they live in areas where the yearly rainfall pattern is very predictable. Furthermore, risk affects only the poor in this way: In the case of the richer farmers, there is no relationship between farm profit rates and variability in rainfall, presumably because they can afford a loss of harvest and therefore are willing to take risks.

Another strategy that poor farmers often adopt is to become someone's share tenant, meaning that the landlord pays a part of the cost of farming and claims a part of the output. This limits the farmer's risk exposure at the cost of incentives: Knowing that the landlord will take half (for example) of whatever comes out of the ground, the farmer has less reason to work very hard. A study in India showed that farmers put in 20 percent less of their own effort on land that they sharecrop compared to land where they are entitled to the entire crop.[13] As a result, these plots are farmed less intensively and less efficiently.

Having multiple occupations, as many poor people do, is also inefficient. It is hard to become a specialist in anything without specializing in it. Women who run three different businesses and men who cannot commit to a fixed job in the city because they want to keep the option of returning to the village every few weeks give up the opportunity to acquire skills and experience in their main occupations. By passing up these opportunities, they also pass up the gains from specializing in what they are really good at.

The risk borne by the poor is thus not only costly once a shock hits: The fear that something bad might happen has a debilitating effect on poor people's ability to fully realize their potential.

Helping Each Other Out

Another, and potentially much better, way to deal with risk is for villagers to help each other out. Most poor people live in villages or neighborhoods and have access to an extensive network of people who know them well: extended families, communities based on religion or ethnicity. Whereas some shocks may strike everyone in the network (a bad monsoon, for example), others are more specific. If those who are doing well now help out those who are having a bad time, in return for similar help when the roles are reversed, everyone can be made better off: Helping each other out does not have to be charity.

A study by Christopher Udry shows both the power and the limits of such informal insurance. Over an entire year that he spent in rural Nigeria, Udry got his fellow villagers to record every gift or informal loan that they gave to each other, as well as the terms under which they repaid those loans.[14] He also asked them every month if something bad had happened to them. He found that at any point in time, the average family owed or was owed money by 2.5 other families. Furthermore, the terms of the loans were adjusted to reflect the situations of both the lender and the borrower. When the borrower suffered a shock, he would reimburse less (often less than the original loan amount), but when it was the lender who had hit a rough patch, the borrower would actually repay *more than he owed*. The dense network of mutual borrowing and lending did a lot to reduce the risk that any individual was facing. Nevertheless, there was some limit to what this informal solidarity could achieve. Families still suffered a drop in consumption when they experienced a shock, even when the total income of everyone in their network put together had not changed.

A large body of research on informal insurance, which has investigated this phenomenon in places ranging from Côte d'Ivoire to Thailand, finds the same thing: While traditional solidarity networks do help in absorbing shocks, the insurance they provide is far from perfect.

If risk were well insured, it should be possible for a family to always consume more or less the same amount, dictated by its average earning capacity: In good times, they would help others, and in bad times, others would help them in turn. This is not what we usually see.

Health shocks, in particular, are very badly insured. In Indonesia, consumption drops 20 percent when a household member falls severely ill.[15] A study in the Philippines documents that intra-village solidarity functions particularly poorly in the case of nonfatal severe illnesses.[16] When a family has a bad harvest, or when someone loses his or her job, other families in the village come to the rescue. The affected family receives gifts, interest-free loans, and various other forms of assistance. But when individuals suffer a health shock, this is apparently not the case. The family is left to deal with it.

The lack of insurance for health shocks is very surprising, given that families do help each other in other ways. In a previous chapter, we talked about Ibu Emptat, a woman we met in a small village in Java, whose husband had a problem with his eyes. Her child had to drop out of school because she could not afford the medicine for his asthma. Ibu Emptat had borrowed 100,000 rupiah ($18.75 USD PPP) from the local moneylender to pay for a cure for her husband's eyes, and when we met her, with accumulated interest she owed 1 million rupiah. She was very worried because the moneylender was threatening to take away everything they had. However, in the course of the interview, we discovered that one of her daughters had just given her a television. The daughter had just bought herself a new one for about 800,000 rupiah ($150 USD PPP) and decided to give her old one (which was still very nice) to her parents. We were a little surprised by this exchange: Wouldn't it have made sense for the daughter to have kept her old TV and given the parents the money to pay the moneylender? We asked her, "Can't one of your children help you with the debt?" Ibu Emptat shook her head and replied that they had their own problems, their own families to take care of—she implied that it was not for her to question the form of the gift. She seemed to think it was normal that no one would offer to help out with her health expenses.

What stops people from doing more to help one another? Why are some forms of risk not covered, or not covered well?

There are good reasons we may be unwilling to offer unconditional help to our friends and neighbors. For one thing, we may worry that the guarantee of help might create a temptation to slack off—this is what insurers call *moral hazard*. Or that people may claim that they are in need even when they are not. Or simply that the promise of mutual help may not be carried through: I help you, but when your turn comes around, you are too busy.

These are all explanations for why we may want to hold back our help a little, but it is not clear whether this could explain not offering help to those who just became very sick, because falling ill is presumably not a choice. The other possibility is that the way most economists think about informal insurance, as situations where we help others because we might need their help in the future, may not be the whole story. It could be that we would help our neighbors in extremis even when we had no expectation of being in a similar position, for example, just because it is immoral to let your neighbors starve. Betsey Hartman and Jim Boyce's book about life in rural Bangladesh in the mid-1970s[17] describes two neighboring families, one Hindu and one Muslim, that were not particularly close to each other. The Hindu family lost its main earner and was starving; in desperation, the woman of that family would creep across the fence into the other family's yard and steal some edible leaves from time to time. Hartman discovered that the Muslim family knew what was going on but decided to turn a blind eye. "I know her character isn't bad," the man said. "If I were in her position, I would probably steal, too. When little things disappear, I try not to get angry. I think 'The person who took this is hungrier than me.'"

The fact that people may help each other out in hard times out of a sense of moral obligation, rather than because they necessarily expect to be helped in the future, can help explain why informal networks are not equipped to deal with health shocks. When even a very poor household that has enough to feed itself sees a neighbor who does not, it just shares what it has. But helping people to pay for hospitalization, for example, requires going beyond this basic act of sharing: Many households would need to chip in, given how expensive hospitalization can be. As a result, it makes sense to exclude expensive health events from the basic moral imperative to help neighbors in need, because it would require a much more elaborate social contract to carry it through.

This view of insurance as mainly a moral duty to help someone in need explains why, in the Nigerian villages, villagers helped each other out on an individual basis, instead of all contributing to a common pot, despite the fact that sharing risk in this other way would be more efficient. It might also explain why Ibu Emptat's daughter gave her mother a TV but did not cover her health costs. She did not want to be the one child who was responsible for her parents' health care (and didn't want to presume the generosity of her siblings). So she chose to do something nice for them without biting off more than she could chew.

WHERE ARE THE INSURANCE COMPANIES FOR THE POOR?

Given the high cost of risk and the limitation of the insurance anyone can get from informal solidarity networks, one must wonder why the poor do not have more access to formal insurance, that is, insurance supplied by an insurance company. Formal insurance of any kind is a rarity among the poor. Health insurance, insurance against bad weather, and insurance against the death of livestock, which are standard products in the lives of farmers in rich countries, are more or less absent in the developing world.

Now that microcredit is something that everyone knows about, insurance for the poor seems like an obvious target of opportunity for the high-minded creative capitalist (a *Forbes* op-ed called it an "unpenetrated natural market").[18] The poor face an enormous amount of risk and should be willing to pay a reasonable insurance premium to insure their lives, their health, their cattle, or their harvest. With billions of poor people waiting to be insured, even a tiny profit per policy could make it a tremendous business proposition, and at the same time, it would also be a big help to the world's poor. All that seems to be lacking is someone to organize this market. This has prompted international organizations (such as the World Bank) and large foundations (likes the Gates Foundation) to invest hundreds of millions of dollars to encourage the development of insurance options for the poor.

There are of course a number of obvious difficulties with providing insurance. These problems are not specific to the poor. They are fundamental problems, but they are amplified in poor countries, where it is more difficult to regulate insurers and monitor the insured. We have already mentioned "moral hazard": People may change their behavior (farm less carefully, spend more money on health care, and so forth) once they know that they will not bear the full consequences. Consider some of the problems of providing health insurance, for example. We have seen that even without health insurance, the poor visit some forms of health providers all the time. What will they do if visits become free? And won't the doctors also have reason to prescribe unnecessary tests and drugs, especially if they also own a lab (which a lot of doctors do, both in the United States and in India) or get kickbacks from the drugstore? It seems that everything pushes in the same direction: Patients want to see action, so they tend to prefer doctors who are prescription happy, and the doctors often make more money if they prescribe more. Offering reimbursement-based health insurance for outpatient care in a country where health care is at best weakly regulated, and where anybody can set up shop as a "doctor," seems like the first step toward bankruptcy.

Another issue is "adverse selection." If insurance is not mandatory, those who know that they are likely to have a problem in the future may be more likely to get insurance. This would be fine as long as the insurer also knows that, because it could be factored into the premium. But if the insurance company is unable to identify those who are joining because they want care now, all they can do is raise the premium on everyone. The higher price, however, makes things worse, as it drives away those who know they will probably not need the insurance, thus exacerbating the original problem. This is why, in the United States, getting health insurance at reasonable prices is very difficult for those who cannot get it through their employers. And this is why affordable health insurance programs tend to be mandatory—if everyone is required to join, the insurer does not get stuck with just the high-risk types.

A third problem is outright fraud: What is to prevent a hospital from presenting to the insurer a large number of bogus claims or charging the patient substantially more than the cost of care received? And if a farmer purchases insurance for his water buffalo, what is to stop him from claiming that the buffalo had died? Nachiket Mor and Bindu Ananth from ICICI Foundation are the two people in the Indian financial sector most committed to designing better financial services for the poor. They recounted to us, with self-deprecating humor, their first disastrous attempt, many years ago, to provide cattle insurance: After the first lot of policyholders universally claimed to have lost their cattle, they decided that in order to claim that an animal had died, the owner would need to show the ear of the dead cow. The result was a robust market in cows' ears: Any cow that died, insured or not, would have its ear cut off and the ear would then be sold to those who had insured a cow. That way they could claim the insurance and keep their cow. In summer 2009, we went to a meeting where Nandan Nilekani, founder and ex-CEO of the Indian software giant Infosys, who had been charged by the government to provide every Indian with a "unique ID," was explaining his plan for unique identification. He assured listeners that ten fingerprints and a picture of the irises are essentially enough to uniquely identify anyone. Mor was listening intently. When Nilekani paused, he spoke up: "It's too bad that cattle don't have fingers."

Some types of risk ought to be easier to insure than others. Consider weather, for example. A farmer should value a policy that pays him a fixed amount (based on the premium he paid) when the rainfall measured at the nearby weather station falls below a certain critical level. Because no one controls the weather and there is no judgment to be made about what should be done (unlike in medical care, where someone must decide which tests or treatment is needed), there is no scope for moral hazard or fraud.

Within health care, insuring catastrophic health events—major illnesses, accidents—seems much easier than covering outpatient care. Nobody wants to have surgery or chemotherapy just for the heck of it, and the treatment is easily verified. The danger of overtreatment remains, but the insurer can cap what it will pay for each treatment. The big issue that remains is selection: The insurance company does not want only sick people signing up.

To avoid adverse selection, the trick is to start from a large pool of people who came together for some other reason than health—employees of a large firm, microcredit clients, card-carrying Communists . . . and try to insure all of them.

This is why many microfinance institutions (MFIs) thought of offering health insurance. They have a large pool of borrowers who could be offered insurance products. And because catastrophic health problems sometimes drive the otherwise highly compliant microcredit clients into default, health insurance for them would be a little bit of insurance for the MFI as well. Moreover, it would be easy to collect premiums from the clients, since loan officers already meet with them every week—in effect, they could just fold the premium into the loan.

In 2007, SKS Microfinance, then the largest microfinance institution in India, introduced "Swayam Shakti," a pilot health-insurance program offering maternity, hospitalization, and accident benefits. It was made mandatory for the groups to which it was offered to avoid adverse selection. To deal with the potential for fraud, benefits were capped and clients were strongly encouraged to use those hospitals with which SKS had a long-term networking arrangement. To sweeten the deal, clients who went to these hospitals were offered a "cashless facility": They would not need to pay anything as long as their treatment was for a covered illness—SKS would pay the hospitals directly.

When SKS first introduced the product, the company tried to make it mandatory for its clients. But the clients rebelled, so SKS decided to make the product mandatory only at the first renewal. The result was that some clients decided not to renew the loans, and SKS started losing clients in the areas where they were offering the insurance. After a few months, renewal rates for SKS loans had fallen from about 60 percent to about 50 percent. A CEO of a competing microfinance institution was asking us about our work with SKS, and when we said we were working on evaluating the impact of offering mandatory health insurance to microcredit clients, she laughed and said, "Oh, I know the effect! Everywhere SKS made this product mandatory, we got many more clients. People are leaving SKS to join our organization!" About one-fourth of the clients, eager to continue borrowing from SKS while avoiding being insured, found a loophole. They prepaid their loan just before the end of the one-year premium. This way, when they renewed their loan, they still technically had coverage, and therefore they did not have to pay the new premium. Faced with this resistance, SKS decided to make the product voluntary. But a voluntary product taken by only a few clients is again susceptible to adverse selection and moral hazard. The charges per covered client exploded, and ICICI Lombard, the company on behalf of which SKS was offering the insurance, decided it was losing money and asked SKS to stop insuring new clients. Other organizations attempting similar schemes have encountered very similar problems with client resistance to mandatory enrollment.

Micro health insurance is not the only form of insurance that has run into trouble. A group of researchers, including Robert Townsend, our colleague at MIT, tried to measure the impact of access to a very simple weather insurance scheme. Much like the one we described above, it pays a given amount of money when it rains less than a specific amount.[19] The product was marketed in two regions in India—Gujarat and Andhra Pradesh—both dry and drought-prone. In both cases, it was sold through a well-respected and well-known microfinance organization. The company tried various ways to offer and present the insurance to farmers. Overall, the sign-up rates were extremely low: At most, 20 percent of farmers bought some insurance, and that level of sign-up only occurred when someone from those very well-known MFIs went door to door to sell the product. Moreover, even those who bought some insurance bought very little: Most farmers purchased policies that would cover only 2 percent to 3 percent of their losses if the rains did fail.

Why Don't Poor People Want Insurance?

A first possibility for the low demand for insurance is that the government has spoiled the market. This is the familiar demand-wallah argument: When markets do not work, overprovision by the government or international institutions is probably to blame. The specific argument is that when disaster strikes, these kindly souls step in to help, and as a result, people actually don't need insurance.

It is true that during bad monsoon years, Indian districts compete to be designated "drought affected" because this opens the door for government help. Jobs are provided on government construction sites, food gets distributed, and so on. But it should be clear that this is a very small part of what the poor need. For one thing, the government intervenes only in cases of large-scale disasters, not when a buffalo dies or someone is hit by a car. And even disaster relief is, in most cases, vastly insufficient by the time it gets to the poor.

Another possibility is that the poor do not understand the concept of insurance very well. It is true that insurance is unlike most transactions that the poor are used to. It is something that you pay for, hoping that you will never need to make use of it. When talking to SKS clients, we met many people who were upset when their health insurance premiums were not reimbursed even though they hadn't made any claims over the past year. It is certainly possible to explain the concept of insurance better, but it is hard to imagine that a population that ingeniously found a loophole in the SKS system couldn't figure out the basic principle of insurance. Townsend, as a part of his effort to sell weather insurance, carried out an exercise to figure out whether people understand how the insurance works. While visiting each farmer, the salesman read aloud a brief description of a hypothetical insurance product (temperature insurance) and then asked the potential client several simple hypothetical questions about when the policy would pay out. The respondents had the correct answers three-fourths of the time. It is not clear that the average American or French person would do much better. It is therefore no surprise that the attempts to explain the rainfall insurance product better had no impact on farmers' willingness to purchase.[20]

The farmers were able to understand the main concept of insurance and how it functions, but they were simply not interested in buying it. They were, however, swayed in their decision by relatively small things. A simple home visit, without any particular effort at marketing, raises the fraction of people who buy weather insurance by a factor of four. In the Philippines, households that were randomly selected to complete a baseline survey containing many questions on health were more likely to eventually subscribe to health insurance than comparable households that had not completed the baseline survey. Presumably, answering all these questions about the possibility of health problems had reminded them of what could happen.[21]

Given the very high stakes, why aren't poor people more enthusiastic about the advantages of being insured, even without these little nudges?

The key problem, we think, is that because of the problems we mentioned earlier, the type of insurance the market can offer only covers people against catastrophic scenarios. This creates a number of issues.

Credibility is always a problem with insurance products: Because the insurance contract requires the household to pay in advance, to be repaid in the future at the discretion of the insurer, the household must trust the insurer completely. In the weather insurance case, the team marketing the product sometimes went with someone from Basix, an organization that the farmers know well, and sometimes they went on their own. They found that the presence of a member of Basix had a fairly large effect on sign-up rates, suggesting that trust is an issue.

Unfortunately this lack of credibility may be endemic, given the nature of the products and the way insurance companies react to any possibility of fraud. In winter 2009, we visited some of the SKS clients who had decided not to renew their health insurance. One woman said that she decided not to renew after SKS refused to reimburse her when she went to the hospital with a stomach infection. Since the policy covered only catastrophic events, a stomach infection, horrible as it can be, did not qualify. But it was not clear that she understood the distinction—after all, she went to the hospital and was treated there. She also talked about a woman from another borrowing group (like most MFIs, SKS has its clients organized into groups) whose husband died of a severe infection, but not before his wife spent quite a bit of money on medicines and doctors. After his death, she submitted her bills to the insurance company, but the company refused to pay up on the grounds that he had never spent a night in the hospital. Appalled by the incident, an entire group of women decided to stop paying the premium. From a purely legal point of view, the insurer was clearly within its right to refuse payment. On the other hand, what could be more catastrophic?

Weather insurance has many of the same problems. The crop may have dried up and the farmers may be starving, but if the rainfall is above the cutoff at the rainfall station, no one in that area will get any payment. Yet there are many microclimates: In any year when the average rainfall in the area is just above the drought cutoff, many individual farmers must face droughtlike conditions, just by the laws of chance. It is not going to be easy for suffering farmers to accept the verdict of the weather station, especially in an environment where corruption is not unknown.

The second issue is the problem of time inconsistency, which we already encountered in our chapter on health. When deciding whether or not to buy the insurance, we need to do the thinking now (and pay the premium), but the payout, if any, would take place in the future. We have already seen that this is a type of reasoning human beings are particularly bad at doing. The problem is made even harder when the insurance is against a catastrophic event: The payout would take place not only in the future, but in a particularly unpleasant future that no one really wants to think about. Not spending too much time anticipating these events may be a natural protective reaction, and this may explain why people were more likely to buy insurance after they were forced to think about it by answering a survey.

For these reasons, micro insurance may not become the next billion-client market opportunity: There seem to be deep reasons that most people don't yet feel very comfortable with the kinds of insurance products that the market is willing to offer. On the other hand, the poor clearly bear unacceptable levels of risk.

There is thus a clear role for government action. This does not mean the government needs to substitute for a private insurance market, but for a real market to have a chance to emerge, the government will probably need to step in. Private companies could continue to sell exactly the kinds of insurance they are currently willing to sell (catastrophic care with a strict cap, indexed weather insurance, and so forth). But for the time being, the government should pay a part of insurance premiums for the poor. There is already evidence that this could work: In Ghana, when weather insurance was offered to farmers with a large subsidy on the premium, almost all farmers to whom it was offered took it up. Because the fear of bad shocks leads the poor to costly mitigation strategies, subsidizing insurance could pay for itself in terms of higher incomes for the poor. In Ghana, farmers who had received cheap insurance were more likely to use fertilizer on their crops than those who had not received it, and they were better off as a result. They reported, for example, being much less likely to have missed a meal.[22] It is possible that over time, as people start to see how insurance works and the market starts to grow, the subsidy could be phased out. But even if that is not possible, given the enormous potential gains that could be achieved if the poor did not need to be the hedge-fund managers of their own lives, this seems like a great place to use public funds to promote the common good.