

The Economics of Microfinance

Second Edition

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1 Rethinking Banking

1.1 Introduction

In March 1978, seven years after Bangladesh won its war for independence, a small group of young men joined together to make a secret pledge. They vowed to create a new and dynamic organization dedicated to fighting rural poverty. Some saw Bangladesh's plight as hopeless, as the country struggled in a world increasingly divided between haves and have-nots. Thirty years later, however, the organization started by the young men serves nearly six million villagers in Bangladesh and is celebrated by global business leaders. The Association for Social Advancement (now best known by its acronym, ASA) targets Bangladesh's poorest villagers, many of them women, offering tools to create better lives. ASA found success by applying fundamental lessons from economics and management, coupled with important (and not obvious) new insights. In the process, ASA is expanding financial markets and creating fresh ways to think about business strategies, economics, and social change.¹

The hurdles have been high and ASA's leaders have had to rethink their plans more than once. While ASA started with a commitment to fomenting political transformation, its course shifted radically. Today ASA is squarely a bank for the poor, headquartered in a new office tower in Bangladesh's capital. In this, ASA stands as part of a global "microfinance" movement dedicated to expanding access to small-scale loans, savings accounts, insurance, and broader financial services in poor and low-income communities. Their bet is that access to microfinance can offer powerful ways for the poor to unlock their productive potential by growing small businesses. Increasingly, the focus is also on helping customers save for the future and create more stable lives. In

doing so, ASA and institutions like it are challenging decades of thinking about markets and social policy in low-income communities.

ASA's customers borrow on average around \$120 per loan, and repay the loans over the better part of a year. Traditional commercial banks avoid this population. First, the loans are so small that profits are typically hard to find, and, second, lending seems risky since the borrowers are too poor to offer much in the way of collateral. But at the end of 2008 ASA reported loan recovery rates of 99.6 percent, and their reported revenues have fully covered costs in every year since 1993.

For many observers, microfinance is nothing short of a revolution or a paradigm shift (Robinson 2001). Innovators are profiled in leading newspapers and business magazines (in December 2007, ASA topped *Forbes* magazine's global ranking of microfinance providers), and the 2006 Nobel Peace Prize, awarded to the microfinance pioneers Muhammad Yunus and Grameen Bank, signals the ways in which microfinance has shaken up the world of international development. One of the most striking elements is that the pioneering models grew out of experiments in low-income countries like Bolivia and Bangladesh—rather than from adaptations of standard banking models in richer countries.

Entrepreneurs, academics, social activists, and development experts from around the world have been attracted by the lessons about retail banking through microfinance, as well as by the promise that banks like ASA hold for getting much-needed resources to underserved populations.² Scores of doctoral dissertations, master's theses, and academic studies have now been written on microfinance. Some focus on the nontraditional contracts used to compensate for risks and to address information problems faced by the microlenders. Others focus on microfinance as a way to better understand the nature of markets in low-income economies—with possible lessons for how to supply insurance, water, and electricity through markets rather than through inefficient state-owned companies. Still others focus on the ways that microfinance promises to reduce poverty, fight gender inequality, and strengthen communities. This book provides a critical guide to some of the most important new ideas.

The ideas give reasons for hope. Banks and NGOs like ASA are flourishing at a time when the effectiveness of foreign aid to ease the burdens of the world's poor faces fundamental questions (e.g., Boone 1996; Easterly 2006). Governments around the world routinely face

criticism for at times being corrupt, bloated, and uninterested in reform. Against this background, banks and NGOs like ASA offer the promise of innovative, cost-effective paths to poverty reduction and social change.

ASA is not the only microlender flourishing in rural Bangladesh. ASA's leadership could learn from the experiences of Grameen Bank and from BRAC (formerly the Bangladesh Rural Advancement Committee). When we looked at the figures at the end of 2003, Grameen claimed 3.1 million members, BRAC claimed 3.9 million, and ASA claimed 2.3 million, nearly all of whom had been written off by commercial banks as being "unbankable." Just four years later, at the end of 2007, the 3 biggest microlenders in Bangladesh claimed over 20 million customers: Grameen counted 7.4 million members, BRAC counted another 7.4 million, and ASA counted 5.4 million.³ Even accounting for the fact that people may belong to more than one micro-lending program at a time, both the absolute and relative figures show the potential for rapid growth and scale.

The institutions anchor a movement that is global and growing. Microfinance programs have created new opportunities in contexts as diverse as villages along the Amazon, inner-city Los Angeles, the Paris outskirts, and war-ravaged Bosnia. Programs are well-established in Bolivia, Bangladesh, and Indonesia, and momentum is gaining in Mexico and India. Table 1.1 shows the results of a survey conducted by the Microcredit Summit Campaign. By the end of 2007, the campaign had reports of 154.8 million microfinance clients served worldwide by over 3,350 microfinance institutions. Of these clients, 106.6 million were reported as being in the bottom half of those living below their nation's poverty line or were living in households earning under \$1 per day per person (defined as "the poorest"; Daley-Harris 2009). Between 1997 and 2007, the numbers grew on average by about 30 percent per year, and the movement's leaders expect continued expansion as credit unions, commercial banks, and others enter the market.

Microfinance presents a series of exciting possibilities for extending markets, reducing poverty, and fostering social change. But it also presents a series of puzzles, many of which have not yet been widely discussed. One aim of this book is to describe the innovations that have created the movement. Another aim is to address and clarify the puzzles, debates, and assumptions that guide discussions but that are too often overlooked. Debates include whether the poorest are best

Table 1.1

Growth of microfinance coverage as reported to the Microcredit Summit Campaign, 1997–2007

End of year	Total number of institutions	Total number of clients reached (millions)	Number of “poorest” clients reported (millions)
1997	655	16.5	9.0
1998	705	18.7	10.7
1999	964	21.8	13.0
2000	1,477	38.2	21.6
2001	2,033	57.3	29.5
2002	2,334	67.8	41.6
2003	2,577	81.3	55.0
2004	2,814	99.7	72.7
2005	3,056	135.2	96.2
2006	3,244	138.7	96.2
2007	3,352	154.8	106.6

Source: Daley-Harris 2009.

served by loans or by better ways to save, whether subsidies are a help or a hindrance, whether providing credit without training and other complements is enough, and which aspects of lending mechanisms have driven successful performances. Many of the insights from the microfinance experience can be seen fruitfully through the lens of recent innovations in economics (especially the economics of information, contract theory, and behavioral economics). Other microfinance insights point to areas where new research is needed, especially around possibilities and constraints for saving by the poor and for estimating social impacts.

Another aim of the book is to tackle the myths that have made their way into conversations on microfinance. The first myth is that microfinance is essentially about providing loans. In chapter 6 we show that providing better ways for low-income households to save and insure can be as important. But we take issue with the argument that, for the poorest, saving is *more* important. The second myth is that the secret to the high repayment rates on loans is tied closely to the use of the group lending contracts made famous by Bangladesh’s Grameen Bank and Bolivia’s BancoSol. (Grameen’s original approach is described in section 1.4 and in chapter 4.) Group lending has indeed been a critical innovation, but we note emerging tensions,

and in chapter 5 we describe a series of innovations in contracts and banking practices that go beyond group lending. We believe that the future of microfinance lies with these less-heralded innovations—including the focus on female customers (discussed in greater detail in chapter 7) and the improved management practices described in chapter 11.

The third myth is that microfinance has a clear record of social impacts and has been shown to be a major tool for poverty reduction and gender empowerment. We believe that microfinance can make a real difference in the lives of those served (otherwise we would not have written this book), but microfinance is neither a panacea nor a magic bullet, and it cannot be expected to work everywhere or for everyone. Relatively few rigorous studies of impacts have been completed, and the evidence on statistical impacts has been mixed so far. There is not yet a widely acclaimed study that robustly shows strong impacts, but many studies suggest the possibility. Better impact studies can help resolve debates, and we review recent results using randomized control trials. Chapter 9 describes approaches and challenges to be confronted in pushing ahead.

The final myth is that most microlenders today are both serving the poor and making profits. We show in chapters 8 and 10 that profitability has been elusive for many institutions, and we describe why good banking practices matter—and how subsidies can be deployed strategically to move microfinance forward.

Unlike most discussions of microfinance oriented toward practitioners, we do not begin by describing new microfinance institutions.⁴ We will have much to say about recent innovations later, but our approach begins instead with the nature of poverty and the markets and institutions that currently serve poor households. By beginning with households, communities, and markets, we develop analytical tools and insights that can then be used to think about the new institutions, as well as to think about directions that go beyond current approaches.

1.2 Why Doesn't Capital Naturally Flow to the Poor?

From the viewpoint of basic economics, the need for microfinance is somewhat surprising. One of the first lessons in introductory economics is the principle of diminishing marginal returns to capital, which says that enterprises with relatively little capital should be able to earn

higher returns to their investments than enterprises with a great deal of capital. Poorer enterprises should thus be able to pay banks higher interest rates than richer enterprises. Money should flow from rich depositors to poor entrepreneurs.

The “diminishing returns principle” is derived from the assumed concavity of production functions, as illustrated in figure 1.1. Concavity is a product of the plausible assumption that when an enterprise invests more (i.e., uses more capital), it should expect to produce more output, but each additional unit of capital will bring smaller and smaller incremental (“marginal”) gains. When a tailor buys his first \$100 sewing machine, production can rise quickly relative to the output when using only a needle and thread. The next \$100 investment, say for a set of electric scissors, will also bring gains, but the incremental increase is not likely to be as great as that generated by the sewing machine. After all, if buying the scissors added more to output than the sewing machine, the wise tailor would have bought the scissors first. The size of the incremental gains matter since the marginal return to capital determines the borrowers’ ability to pay.⁵ As figure 1.1 shows, concavity implies that the poor entrepreneur has a higher marginal return to capital (and thus a higher ability to repay lenders) than a richer entrepreneur.

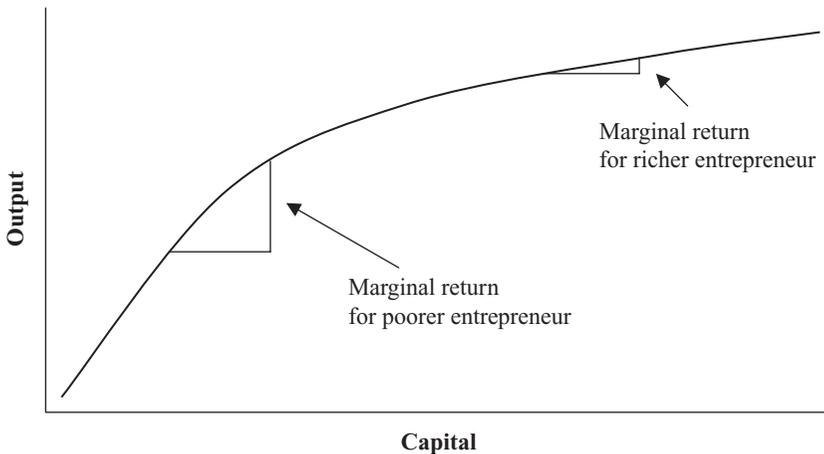


Figure 1.1

Marginal returns to capital with a concave production function. The poorer entrepreneur has a greater return on his next unit of capital and is willing to pay higher interest rates than the richer entrepreneur.

On a larger scale, if this basic tool of introductory economics is correct, global investors have got it all wrong. Instead of investing more money in New York, London, and Tokyo, wise investors should direct their funds toward India, Kenya, Bolivia, and other low-income countries where capital is relatively scarce. Money should move from North to South, not out of altruism but in pursuit of profit. The Nobel-winning economist Robert Lucas Jr. has measured the extent of the expected difference in returns across countries (assuming that marginal returns to capital depend just on the amount of capital relative to other productive inputs). Based on his estimates of marginal returns to capital, Lucas (1990) finds that borrowers in India should be willing to pay fifty-eight times as much for capital as borrowers in the United States. Money should thus flow from New York to New Delhi.⁶

The logic can be pushed even further. Not only should funds move from the United States to India, but also, by the same argument, capital should naturally flow from rich to poor borrowers *within* any given country. Money should flow from Wall Street to Harlem and to the poor mountain communities of Appalachia, from New Delhi to villages throughout India. The principle of diminishing marginal returns says that a simple cobbler working on the streets or a woman selling flowers in a market stall should be able to offer investors higher returns than General Motors or IBM or the Tata Group can—and banks and investors should respond accordingly.

Lucas's ultimate aim is to point to a puzzle: given that investors are basically prudent and self-interested, how has introductory economics got it wrong? Why are investments in fact far more likely to flow from poor to rich countries, and not in the other direction? Why do large corporations have a far easier time obtaining financing from banks than self-employed cobblers and flower sellers?

The first place to start in sorting out the puzzle is with risk. Investing in Kenya, India, or Bolivia is for many a far riskier prospect than investing in U.S. or European equities, especially for global investors without the time and resources to keep up-to-date on shifting local conditions. The same is true of lending to cobblers and flower sellers versus lending to large, regulated corporations. But why can't cobblers and flower sellers in the hinterlands offer such high returns to investors that their risk is well compensated for?

One school argues that poor borrowers can pay high interest rates in principle but that government-imposed interest rate restrictions prevent banks from charging the interest rates required to draw capital

from North to South and from cities to villages.⁷ If this is so, the challenge for microfinance is wholly political. Advocates should just convince governments to remove usury laws and other restrictions on banks, then sit back and watch the banks flood into poor regions. That is easier said than done of course, especially since usury laws (i.e., laws that put upper limits on the interest rates that lenders can charge) have long histories and strong constituencies.

Reality is both more complicated and more interesting. Even if usury laws could be removed, providing banks with added freedom to serve the poor and cover costs is not the only answer. Indeed, as we show in chapter 2, raising interest rates can undermine institutions by weakening incentives for borrowers. Once (lack of) information is brought into the picture (together with the lack of collateral), we can more fully explain why lenders have such a hard time serving the poor, even households with seemingly high returns. The important factors are the bank's incomplete information about poor borrowers and the poor borrowers' lack of collateral to offer as security to banks.

The first problem—adverse selection—occurs when banks cannot easily determine which customers are likely to be more risky than others. Banks would like to charge riskier customers more than safer customers in order to compensate for the added probability of default. But the bank does not know who is who, and raising average interest rates for everyone often drives safer customers out of the credit market. The second problem, moral hazard, arises because banks are unable to ensure that customers are making the full effort required for their investment projects to be successful. Moral hazard also arises when customers try to abscond with the bank's money. Both problems are made worse by the difficulty of enforcing contracts in regions with weak judicial systems.

These problems could potentially be eliminated if banks had cheap ways to gather and evaluate information on their clients and to enforce contracts. But banks typically face relatively high transactions costs when working in poor communities since handling many small transactions is far more expensive than servicing one large transaction for a richer borrower. Another potential solution would be available if borrowers had marketable assets to offer as collateral. If that were so, banks could lend without risk, knowing that problem loans were covered by assets. But the starting point for microfinance is that new ways of delivering loans are needed precisely because borrowers are too poor to have much in the way of marketable assets. In this sense,

for generations poverty has reproduced poverty—and microfinance is seen as a way to break the vicious circle by reducing transactions costs and overcoming information problems.⁸

1.3 Good Intentions Gone Awry: The Failures of State-Owned Development Banks

The lack of banks does not mean that poor individuals are unable to borrow. They do—but from informal sources such as moneylenders, neighbors, relatives, and local traders. Such lenders often have the rich information (and effective means of enforcing contracts) that banks lack. Their resources, however, are limited. Microfinance presents itself as the latest solution to the age-old challenge of finding a way to combine the banks' resources with the local informational and cost advantages of neighbors and moneylenders. Like traditional banks, microfinance institutions can bring in resources from outside the community. Microfinance is not the first attempt to do this, but it is by far the most successful.

The success of microfinance depends in part on studiously avoiding the mistakes of the past. As low-income countries attempted to develop their agricultural sectors after World War II, rural finance emerged as a large concern then too. Large state agricultural banks were given the responsibility for allocating funds, with the hope that providing subsidized credit would induce farmers to irrigate, apply fertilizers, and adopt new crop varieties and technologies (e.g., Reserve Bank of India 1954). The hope was to increase land productivity, increase labor demand, and thereby to increase agricultural wages.

Heavy subsidies were also deployed to compensate the banks for entering into markets where they feared taking huge losses due to high transactions costs and inherent risks. The subsidies were also used to keep interest rates low for poor borrowers. In the Philippines, for example, interest rates charged to borrowers were capped at 16 percent before a reform in 1981, while inflation rates were around 20 percent annually (David 1984). The negative real interest rates created excess demand for loans, adding pressure to allocate loans to politically favored residents, rather than to target groups. Meanwhile, the interest rates offered to rural depositors were only about 6 percent per year, so inflation eroded the purchasing power of savings at a rate of about 14 percent per year. Not surprisingly, such policies turned out disastrously. David (1984, 222) concludes that in the Philippines

“credit subsidies through low interest rates worsen income distribution because only a few, typically well-off farmers, receive the bulk of the cheap credit. When interest rates are not allowed to reflect costs of financial intermediation, wealth and political power replace profitability as the basis of allocating credit.” Rather than delivering greater financial credit, the policies have been blamed for creating financial repression (McKinnon 1973).⁹

India’s Integrated Rural Development Program (IRDP) is, to many, a too perfect example of inefficient subsidized credit. The program allocated credit according to “social targets” that in principle pushed 30 percent of loans toward socially excluded groups (as signified by being a member of a “scheduled” tribe or caste) and 30 percent toward women. Achieving social goals became as important as achieving efficiency. Under the system, capital was allocated according to a series of nested planning exercises, with village plans aggregating to block plans aggregating to district plans aggregating to state plans. Subsidies between 1979 and 1989, a period of rapid IRDP growth, amounted to \$6 billion (roughly 25 percent to 50 percent of loan volume made to weak sectors). Those resources did not generate good institutional performance. According to Pulley (1989), IRDP repayment rates fell below 60 percent, and just 11 percent of borrowers took out a second loan after the first (which is particularly striking given the importance accorded to repeat lending by microfinance practitioners). In 2000, the IRDP loan recovery rate fell to just 31 percent (Meyer 2002).¹⁰ As institutional performance dramatically weakened, the IRDP failed to be a reliable and meaningful source of services for the poor.

In the late 1970s and early 1980s, the Rural Finance Program at Ohio State University launched a devastating critique of government-led development banks like the IRDP and the Philippine programs.¹¹ Its starting point was that credit is not like fertilizer or seeds. Instead, Ohio School critics argued, credit should be thought of as a fungible tool of financial intermediation (with many uses) and not as a specific input into particular production processes. Thus one problem, according to such criticisms, came from mistakenly believing that credit could be “directed” to particular ends favored by policymakers (e.g., expanding the use of high-yielding crop varieties). And that, coupled with cheap credit policies, created havoc in rural financial markets and ultimately undermined attempts to reduce poverty (Adams, Graham, and von Pischke 1984). The story hinges on a failure to adequately account for the incentive effects and politics associated with subsidies. Subsidizing

banks, it was argued, made those banks flabby by creating monopolies and removing market tests.

Thus, critics of the subsidized state banks argue that poor households would often have been better off *without* the subsidies. This is in part because, first, subsidized banks pushed out informal credit suppliers on which the poor rely. Second, the market rate of interest is a rationing mechanism—those who are willing to pay for credit are only those with projects that are most worthy. But with subsidies driving interest rates well below market rates of interest, the rationing mechanism broke down. Credit was no longer allocated to the most productive recipients, but instead was often allocated on the basis of politics or social concerns. Good projects thus went unfunded. Third, bankers' incentives to collect savings deposits were diminished by the steady flow of capital from the government, so poor households were left with relatively unattractive and inefficient ways to save. Fourth, the fact that the banks were state banks led to pressure to forgive loans just before elections, to privilege the powerful with access to cheap funds meant for the poor, and to remove incentives for management to build tight, efficient institutions. Braverman and Guasch (1986) conclude that government credit programs in Africa, the Middle East, Latin America, South Asia, and Southeast Asia have, with a few exceptions, ended up with default rates between 40 percent and 95 percent. And at such rates, borrowers can be excused for seeing the credit programs as providing grants rather than loans. The misallocation of resources happened so regularly that González-Vega (1984) dubs it the "iron law of interest rate restrictions."

Critics hold that these kinds of subsidies undermined the poor, although the evidence from India at least provides a more nuanced picture. Empirical work by Burgess and Pande (2005), for example, shows net positive average impacts on the poor in India.¹² Similarly, Binswanger and Khandker (1995) find that between 1972–1973 and 1980–1981 the state banks in India increased nonfarm growth, employment, and rural wages. Still, the Indian programs have been clearly inefficient, and a great deal of money that was originally targeted to the poor ended up being wasted or going into the "wrong" hands. As a result, Binswanger and Khandker find only modest impacts on agricultural output and none on agricultural employment, and they conclude that the costs of the government programs were so high that they nearly swamped the economic benefits. More than any positive historical precedent, it is the repudiation of these negative legacies that has

driven the microfinance movement to look to the private sector for inspiration.

1.4 Grameen Bank and the Beginnings of Microfinance

The roots of microfinance can be found in many places, but the best-known story is that of Muhammad Yunus and the founding of Bangladesh's Grameen Bank. We briefly tell the story now and return to Grameen's experience in later chapters.¹³

In the middle of the 1970s, Bangladesh was starting down the long road to build a new nation. The challenges were great: independence from Pakistan had been won in December 1971 after a fierce war, and two years later widespread flooding brought on a famine that killed tens of thousands (Sen 1981). Government surveys found over 80 percent of the population living in poverty in 1973–1974 (Bangladesh Bureau of Statistics 1992).

Muhammad Yunus, an economist trained at Vanderbilt University, was teaching at Chittagong University in southeast Bangladesh. The famine, though, brought him disillusionment with his career as an economics professor. In 1976, Yunus started a series of experiments lending to poor households in the nearby village of Jobra. Even the little money he could lend from his own pocket was enough for villagers to run simple business activities like rice husking and bamboo weaving. Yunus found that borrowers were not only profiting greatly by access to the loans but that they were also repaying reliably, even though the villagers could offer no collateral. Realizing that he could only go so far with his own resources, in 1976 Yunus convinced the Bangladesh Bank (the central bank of Bangladesh) to help him set up a special branch that catered to the poor of Jobra. That soon spawned another trial project, this time in Tangail in North-Central Bangladesh. Assured that the successes were not region-specific flukes, Grameen went nation-wide. One innovation that allowed Grameen to grow explosively was group lending, a mechanism that essentially allows the poor borrowers to act as guarantors for each other. With group lending in place, the bank could quickly grow village by village as funding permitted. And funding—supplied in the early years by the International Fund for Agriculture and Development, the Ford Foundation, and the governments of Bangladesh, Sweden, Norway, and the Netherlands—permitted rapid growth indeed. As figure 1.2 shows, the bank grew by 40 percent per year at its peak. By 1991 the Grameen

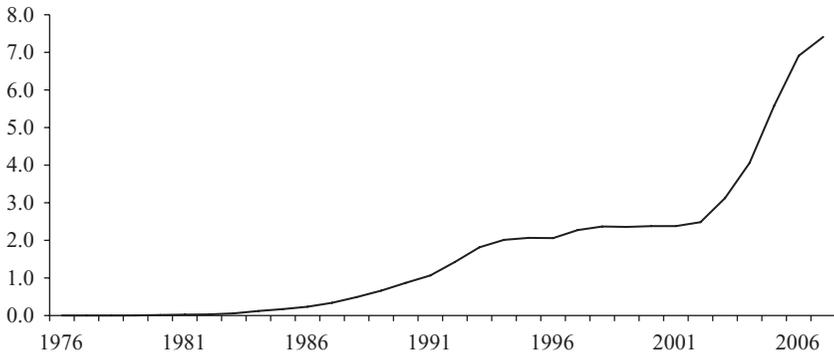


Figure 1.2

Growth in Grameen Bank membership, 1976–2007. *Source:* Grameen Bank Historical Data Series, available at www.grameeninfo.org.

bank had over one million members in Bangladesh, and by June 2008 the number had swollen to 7.5 million. Today, replications exist in thirty countries, from East Timor to Bosnia.¹⁴ Group lending programs also operate in thirty of the fifty states in the United States.¹⁵

Grameen’s “classic” group lending contract works very differently from a standard banking contract for small business. In a standard relationship, the borrower gives the bank collateral as security, gets a loan from the bank, invests the capital to generate a return, and finally pays the loan back with interest. If borrowers cannot repay, their collateral is seized. But Grameen clients are most often too poor to be able to offer collateral; instead, the classic Grameen contract takes advantage of clients’ close ties within their communities. To take advantage of those relationships, the loan contract involves groups of customers, not individuals acting on their own. The groups form voluntarily, and, while loans are made to individuals within groups, all members are expected to support the others when difficulties arise.

The groups consist of five borrowers each; loans go first to two members, then to another two, and then to the fifth group member. In this “classic” contract, the cycle of lending continues as long as loans are being repaid. But, according to the rules, if one member defaults and fellow group members do not pay off her debt, all in the group are denied subsequent loans.¹⁶ This feature gives customers important incentives to repay promptly, to monitor their neighbors, and to select responsible partners when forming groups (Fugelsang and Chandler 1993). Moreover, the five-member group is part of a “center” composed of eight groups. Repayments are made in public, that is, before the forty

members of the center, in weekly installments. Group lending thus takes advantage of local information, peer support, and, if needed, peer pressure. The mechanisms rely on informal relationships between neighbors that facilitate borrowing for households lacking collateral (Besley and Coate 1995; Armendáriz 1999a). The program thus combines the scale advantages of a standard bank with mechanisms long used in traditional modes of informal finance.

The “joint liability” condition is the most celebrated feature of the classic Grameen contract, and it is why microfinance is so closely associated with the idea of group lending. Economic theorists have been intrigued by Grameen’s contracts, and there has been an outpouring of research, beginning with Stiglitz (1990) and Varian (1990), on how joint liability works.¹⁷ Throughout the 1990s, however, we have witnessed a growing diversity of approaches that go well beyond group lending with joint liability. As we argue in chapter 5, although Grameen Bank’s “joint liability” contract gets much attention, there are other, often overlooked, features of the lending relationship that make the Grameen model different from the textbook bank example. In particular, Grameen creates “dynamic incentives” and generates information by starting with very small loans and gradually increasing loan size as customers demonstrate reliability. In addition, the bank uses an unusual repayment schedule: repayments usually begin just a week after the initial loan has been disbursed and continue weekly after that. This makes the contract look much closer to a consumer loan than a business loan, and it changes the nature of the risk that the bank is taking on—and the service that the bank is providing. Beyond these economic mechanisms, Grameen has found that not only does having a customer base that is 95 percent female improve social impacts, but it may also reduce the financial risk for the bank, an issue to which we return in chapters 5 and 7. While traditional banks have historically lent nearly exclusively to men, married women make up the bulk of Grameen borrowers and they are often more reliable customers than their husbands (Khandker 1998).

Disentangling how the various mechanisms work matters, since what works in Bangladesh may work less well in Brazil or Uganda. Even in rural Bangladesh a variety of approaches are being employed. ASA, for example, started with group lending in 1991, with twenty-person groups (rather than five-person groups) and a highly standardized process. In the beginning, ASA’s members took loans in the same amount as one another and thus repaid the same each week, and also

saved the same amount. But ASA's program has become far more flexible, one outcome of which has been to reduce reliance on the joint liability contract. ASA's repayment rates have not suffered at all.¹⁸ In other countries different methods are used, including the use of collateral—but often on more flexible terms than a standard bank would use. In general, the use of “individual lending” (as opposed to group lending) methods is gaining ground. As of 2001, even Grameen Bank joined the pack moving away from the joint liability contract. We unpack these mechanisms and models in chapters 4 and 5.

1.5 A Microfinance Revolution? From “Microcredit” to “Microfinance”

One of the most important departures has involved the shift from “microcredit”—which refers specifically to small loans—to “microfinance.” The broader term embraces efforts to collect savings from low-income households, to provide insurance (“microinsurance”), and, in some places (BRAC in Bangladesh has pioneered here), to also help in distributing and marketing clients' output. Robinson (2001) provides a rich description of a “microfinance revolution” that is just beginning.¹⁹

While the words *microcredit* and *microfinance* are often used interchangeably, they have different resonances and are loosely attached to contrasting beliefs about the state of rural finance and the nature of poverty. The small difference in language signals, for some, a big difference in opinion.²⁰ Microcredit was coined initially to refer to institutions like the Grameen Bank that were focusing on getting loans to the very poor. The focus was explicitly on poverty reduction and social change, and the key players were NGOs. The push to “microfinance” came with recognition that households can benefit from access to financial services more broadly defined (at first the focus was mainly on savings) and not just credit for microenterprises. With the change in language has come a change in orientation, toward “less poor” households and toward the establishment of commercially oriented, fully regulated financial entities.

The push to embrace savings is a welcome one, because it recognizes the pent-up demand for secure places to save, and in that context, the shift from microcredit to microfinance should not be contentious. Debate arises, though, with the relatively new (and wrongheaded in our belief) argument that in fact the poorest customers need savings

facilities *only*—that making loans to the poorest is a bad bet.²¹ (So much for the principle of diminishing returns to capital!)

Our argument against the primacy of saving for the poorest is both theoretical and empirical. Saving is hard for the poorest but not impossible, and credit usually provides the surest way to quickly obtain large sums of money when needed quickly. Empirical evidence shows that households, rich and poor, often borrow *and* save simultaneously, an idea underscored by new work in behavioral economics and the financial stories detailed by Collins, Morduch, Rutherford et al. (2009). Typically, major outlays are financed by a combination of drawing down savings, selling assets, and borrowing. The ability to borrow in a pinch can be especially critical in keeping savings strategies from becoming derailed. Thus, in practice, borrowing and saving are often complementary activities, not substitutes.

The debate on credit versus saving drags up the legacy of the “exploitative moneylender” on one side and the legacy of the subsidized state banks on the other. In the process it also brings out tensions that run through academic work on household consumption patterns in rural areas. Those who see informal moneylenders as exploitative are sensitive to the powerlessness of poor borrowers (e.g., Bhaduri 1973, 1977). But, as Basu (1997) argues, the question then becomes: Why do the poor remain powerless? If only borrowers could tuck away a bit of money at regular intervals, eventually they would accumulate enough to get out from under the clutches of the moneylender.²² Bhaduri’s response is that the very poor are so close to subsistence that saving is impossible—all extra resources need to go into consumption.²³ Loans, not savings, are thus essential.

Against this is the argument that, to the contrary, even the very poor can save in quantity if only given the chance. The fact that they have not been saving, it is argued, is due to “mistaken” beliefs along the line of Bhaduri (1973) and the fact that subsidized state banks never made a serious effort to collect saving deposits, leading some to wrongly infer that the lack of savings is due to inability, not lack of opportunity (Adams, Graham, and von Pischke 1984). Moreover, Adams and von Pischke (1992) argue that very poor households can seldom productively use loans. Exactly counter to Bhaduri, they argue that savings facilities (and not loans) are thus critical for the poorest. Only the “less poor” should thus be the target of microlending.²⁴ The precepts that were the basis of the early microfinance movement have thus been turned on their head.

In chapter 6, we attempt to steer between these two poles of rhetoric. Our view is that the very poor can profit from having better ways to both save and borrow, and in chapter 6 we describe new data that unveils the financial lives of poor households. We also discuss insights into saving from behavioral economics, the emerging field at the intersection of economics and psychology. A growing body of research into decision-making reveals that people, rich and poor, consistently save less than they would like to. The problem is not simply impatience and a lack of “future orientation.” Instead, new explanations point to limits to complex decision making and weak internal self-control mechanisms on the part of individuals. The theory translates into innovative practice and products. Field studies, for example, show the power of mechanisms like structured savings accounts that require regular deposits toward a fixed goal. Having the right mechanisms can make the difference between saving a little and saving a lot.

In chapter 6, we also consider new initiatives to provide “micro-insurance.” Like credit markets, insurance markets are plagued by information problems, high per-unit transactions costs, and a host of contract enforcement difficulties. These problems are magnified in rural areas (where the majority of the poor live) because of the high incidence of risk from floods, droughts, crop loss, and infectious disease. This makes common types of losses particularly difficult to insure against through traditional, local measures. But in chapter 6 we describe innovations in insurance provision that show the potential to match the successes of microfinance to date.

1.6 Rethinking Subsidies

We began the chapter by describing two simple ideas that have inspired the microfinance movement and challenged decades of thinking: first, that poor households can profit from greater access to banks, and, second, that institutions can profit while serving poor customers. Microfinance presents itself as a new market-based strategy for poverty reduction, free of the heavy subsidies that brought down large state banks. In a world in search of easy answers, this “win-win” combination has been a true winner itself. The international Microcredit Summits, first held in 1997, have been graced by heads of state and royalty, and the 2006 Nobel Peace Prize has generated even greater attention for the movement. As foreign aid budgets have been slashed,

microfinance so far remains a relatively protected initiative, and foreign investment has grown rapidly through 2008.

Somewhat paradoxically, though, the movement continues to be driven by hundreds of millions of dollars of subsidies, and those subsidies beget many questions. The hope for many is that microfinance programs will use the subsidies in their early start-up phases only, and, as scale economies and experience drive costs down, programs will eventually be able to operate without subsidies. Once free of subsidies, it is argued, the programs can grow without the tether of support (be it from governments or donors). To do this, sustainability-minded advocates argue that programs will need to mobilize capital by taking savings deposits or by issuing bonds, or institutions must become so profitable that they can obtain funds from commercial sources, competing in the marketplace with businesses like computer makers, global retailers, and large, well-established banks.

In the latter regard, Latin America's largest microlender, Banco Compartamos, an affiliate of ACCION International, has led the way, first through large bond issues (starting with a 100-million-peso bond—approximately \$10 million—in July 2002) and later with a major public stock offering. As ACCION's president, María Otero, remarked in 2002, "This sale is an exciting first for an ACCION partner and an important benchmark in microfinance. ACCION is committed to the growth of financially self-sufficient microlenders who need not depend on donor funding to fight poverty." Banco Compartamos has grown quickly, serving over one million clients across Mexico by 2008, and aiding clients in informal businesses like food vending, handicraft production, and small-scale trade.²⁵

Its entrance into commercial banking is part of a larger trend of commercialization in microfinance, which is the topic of chapter 8. With some micro lenders transforming from nonprofit to regulated institutions and banks redefining their operations to include lending to the poor, the microfinance industry has become more business-like, and more complex. New players have entered the field, including Microfinance Investment Vehicles (MIVs), private funds that invest in microfinance institutions. MIVs have grown at a remarkable rate—their assets increased by 78 percent between the end of 2006 and 2007 (CGAP 2008b)—although the increases are apt to level off with time.

Access to commercial funding gives microfinance institutions freedom from reliance on donor support, but at a price. In general,

commercial sources of funding are accessible only to lenders that have demonstrated that they can turn a profit, and often lenders achieve profitability by raising their interest rates on loans or serving better-off customers able to take larger, more profitable loans. That issue—the transfer of costs to poor borrowers and “mission drift”—is the basis for an at times heated disagreement around the commercialization of microfinance. Banco Compartamos has found itself in the middle of this debate. On the one hand, it reaches more clients than any other micro lender in Latin America. On the other, to win the (Mexico) A+ rating granted by Standard and Poor’s rating agency and to get attention for its public offering, it covered a relatively inefficient administrative structure by charging borrowers effective interest rates above 100 percent per year, putting its charges close to the range of moneylenders upon which microfinance was meant to improve.²⁶

If, as we saw in figure 1.1, the returns to capital function is steeply concave, typical poor borrowers may be able to routinely pay interest rates above 100 percent and still have surplus left over. The fact that Banco Compartamos does not suffer from a lack of clients suggests that there are low-income customers in Mexico willing and able to pay high fees. Microlenders elsewhere, though, have balked at charging high rates and managed to keep them much lower (and Banco Compartamos has reduced its fees in recent years). One global survey shows that after adjusting for inflation, median average interest rates are 25 percent for nongovernmental organizations (NGOs), 20 percent for nonbank financial institutions, and just 13 percent for banks (Cull, Demirgüç-Kunt, and Morduch 2009b). These charges are not low, but they are in line with the costs of handling small transactions.

Why balk at high rates? Ethical considerations aside, let us return to the principle of diminishing marginal returns to capital. Can all poorer borrowers really pay higher interest rates than richer households? An unspoken assumption made in figure 1.1 is that everything but capital is held constant; the analysis implicitly assumed that education levels, business savvy, commercial contacts, and access to other inputs are the same for rich and poor. If this is untrue (and it is hard to imagine it would be true), it is easy to see that entrepreneurs with less capital could have lower marginal returns than richer households. We illustrate this point in figure 1.3. In this case, a poor individual would not be able to routinely pay very high interest rates. Some might, of course, but a considerable group would plausibly be screened out by high rates.

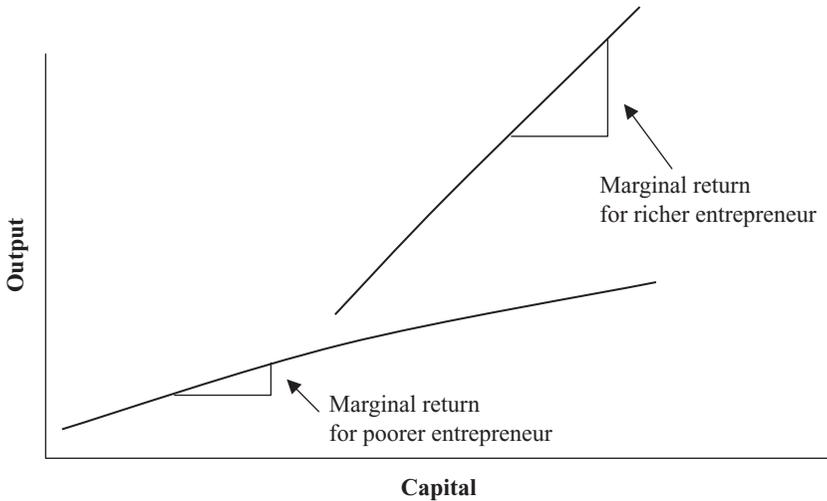


Figure 1.3

Marginal returns to capital for entrepreneurs with differing complementary inputs. Poorer entrepreneurs have lower marginal returns despite having less capital.

Even if we imagine, though, for the moment that both rich and poor were alike in these noncapital characteristics, the principle of diminishing marginal returns to capital may still not hold; this is because the production function may not be so “conveniently” concave. Figure 1.4, for example, shows a scenario where the production technology exhibits increasing returns to scale over a relevant range. Here, there may be larger profits per dollar invested by the larger-scale entrepreneur relative to the returns generated by the entrepreneur with less capital.

Here, again, poorer households cannot pay for credit at high prices. This case has the feature that, without adequate financing, poorer entrepreneurs may never be able to achieve the required scale to compete with better-endowed entrepreneurs, yielding a credit-related poverty trap.²⁷ The challenge taken up in Bangladesh and Indonesia has been to charge relatively low rates of interest (around 15–25 percent per year after inflation adjustments), while continuing to serve very poor clients and covering costs.²⁸

The programs in Bangladesh and Indonesia have also been strategic in their use of subsidies. Like other microfinance lenders, Banco Compartamos received large start-up subsidies, as have most major microfinance institutions. Typical arguments for early subsidization

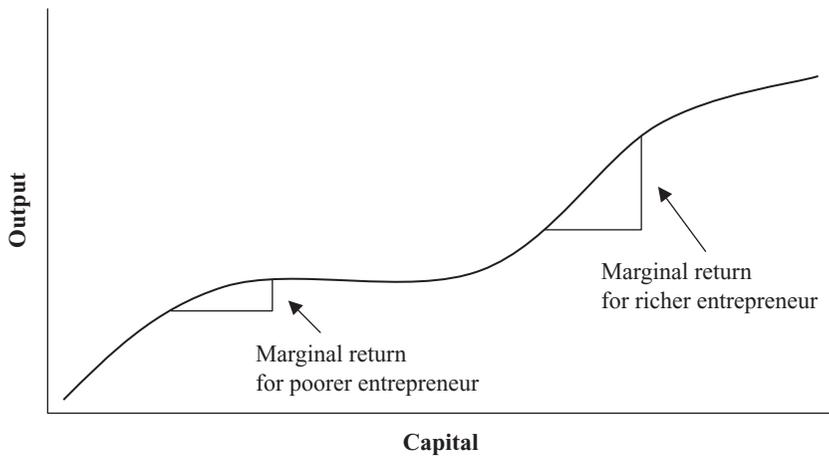


Figure 1.4

Marginal returns to capital with a production function that allows for scale economies (while everything else is the same). As in figure 1.3, poorer entrepreneurs have lower marginal returns despite having less capital.

echo “infant industry” arguments for protection found in the international trade literature. And, as found in such writings, there is fear that some of the “infants” will soon be getting a little long in the tooth. The Grameen Bank, for example, was still taking advantage of subsidies twenty-five years after its start.

A different question is whether the anti-subsidy position is the right one—or, more precisely, whether it is the right position for all programs. Again, there is a parallel with trade theory. The strongly anti-protectionist sentiments that had characterized trade theory for decades (Bhagwati 1988) have given way to more nuanced approaches to globalization, with mainstream economists identifying cases that justify extended protection in the name of economic and social development (e.g., Krugman 1994; Rodrik 1997). So, too, with microfinance: Serious arguments are accumulating that suggest a role for ongoing subsidies if thoughtfully deployed. Of course, that is a big “if,” and chapter 10 provides a guide through the thicket.

Sorting out the stories requires taking apart the “win-win” vision put forward by advocates within the donor community, and recognizing the great diversity of programs jostling under the microfinance tent. ASA’s story, with which we started the chapter, provides a pointed contrast to many other programs. In 1978 Shafiqul Choudhury and

his collaborators started ASA as a small grassroots organization to provide legal aid and training in villages, with the hope of raising the social consciousness of rural households. But in 1991, Choudhury and ASA took a very different turn. Instead of placing hope in consciousness-raising, the leaders of ASA decided that the way to most quickly raise the well-being of the rural poor was by providing banking services, and banking services only. ASA's stripped-down banking model makes profits in large part because of its self-imposed narrow mandate.

But other institutions started where ASA did and took a broader approach to microfinance. They can also count successes, but their bottom lines include improvements in health and education outcomes in addition to financial metrics. Like ASA, charitable organizations like BRAC, Catholic Relief Services, CARE, and Freedom from Hunger have become major microlenders, with missions that also include working to improve health conditions, empower women, and meet the sort of aims articulated as the United Nations' Millennium Development Goals (Littlefield, Morduch, and Hashemi 2003). Latin America's *Pro Mujer* is a case in point. *Pro Mujer* adds education sessions on health topics to weekly bank meetings for customers; it also provides pap screens for cervical cancer and other basic health services. Freedom from Hunger's affiliates provide health education as well, and their evaluations show positive impacts (relative to control groups) on breastfeeding practices, treatment of diarrhea in children, and rates of completed immunizations (Dunford 2001). Bangladesh's BRAC is perhaps the most fully realized "integrated" provider, offering financial services along with schools, legal training, productive inputs, and help with marketing and business planning. If you are in Dhaka these days, for example, you can buy Aarong brand chocolate milk, which is produced by a BRAC dairy marketing affiliate. A different BRAC subsidiary produces Aarong brand textiles made by poor weavers, and still another subsidiary runs craft shops that sell the goods of microfinance clients.

The microfinance movement is thus populated by diverse institutions, some large and many small, some urban and some rural, some more focused on social change and others more focused on financial development. If the programs that are focusing on social change are cost-effectively achieving their goals, should we be concerned that part of their operation is subsidized? Should we be concerned that, to

achieve financial success, Banco Compartamos has had to charge very high interest rates—and that, while a study found that roughly 20 percent of its borrowers were poorer on average than their neighbors, most of its clients are less poor than their neighbors (Zeller, Wollni, and Shaban 2003)?²⁹ Can cross-subsidization from “richer” customers to “poorer” be sustainable over the long term? It is not clear that there is only one correct answer to each of these questions—and, as we show, answers posed as simple, “universal” truths turn out to rest on strings of assumptions that need disentangling.

We focus on one important strand of these entangled assumptions in chapter 10. There, we describe the possibility for designing “smart subsidies.” Doing so will mean making sure that institutions offer quality services that are better than those already available, while also paying close attention to the complicated incentives and constraints of institutions and their staffs. The debate continues as to whether this is possible and, if so, even desirable. Introducing a stronger economic frame will sharpen understandings, and in chapter 10 we analyze concepts behind the trade-offs between lending practices that maximize the depth of outreach (i.e., that serve a greater number of poorer clients) and those that aim to maximize the extent of outreach (those that serve more—but less poor—clients). The book closes by turning to a critical practical issue for microlenders: how to give staff members the appropriate incentives to carry out their economic and social missions. In chapter 11 we draw lessons from agency theory and behavioral economics to describe and challenge conventional wisdom on good management practices.

1.7 Summary and Conclusions

This chapter has set the scene for considering microfinance. We began by asking why “microfinance” is needed in the first place. Why don’t existing markets take care of the problems already? Why doesn’t capital today flow naturally from richer to poorer countries, and from more affluent individuals to poorer individuals? As described in greater detail in chapter 2, the problems largely hinge on market failures that stem from poor information, high transactions costs, and difficulties enforcing contracts.

Microfinance presents itself as an answer to these problems. It challenges long-held assumptions about what poor households can and

cannot achieve and, more broadly, shows the potential for innovative contracts and institutions to improve conditions in low-income communities. Microfinance is a clear improvement over the development banks that emerged in the 1960s, but the implicit “promise” to achieve complete financial self-reliance in short order has been far from fulfilled. And we question whether it should have been a promise in the first place. We have described institutions like Mexico’s Banco Compartamos that have pioneered the path toward commercialization by charging very high interest rates. We have described Bangladesh’s ASA, which has kept a close eye on cost efficiency (and thus has managed to keep interest rates relatively low) and has approached financial self-sufficiency while keeping social objectives in clear view. And we have also described institutions like Bangladesh’s BRAC that work with expanded mandates to provide schools, clinics, and marketing services along with financial services. They too may have a role. Can poverty be most effectively reduced by providing financial services alone? Or can the integrated provision of “complementary” services deliver important added benefits at reasonable costs?

Bold visions have taken the movement this far, and strong, clear ideas are needed to carry the movement forward. Reaching 175 million people (as practitioners hope to do by 2015) is impressive, but as the leaders of the movement are quick to point out, this is just a minority of those who lack access to efficient and reliable financial services at affordable interest rates. Global estimates of the number of unbanked and under-banked adults range between 1 and 2 billion people.

In looking to the future, we will try to dispel microfinance “myths” and revisit ongoing debates in microfinance (particularly about how it works, which customers can be profitably served, and what is the appropriate role for subsidies). In the next chapters we set out ideas that will help evaluate experiences to date, frame debates, and point to new directions and challenges.

1.8 Exercises

1. Microfinance has spread very quickly in low-income countries. However, poor households in relatively high-income countries also lack access to financial services at reasonable prices. Why do financial access and constraints differ between low and high-income countries?

2. Consider an American investor based in New York City. She is attempting to diversify her portfolio across countries. Explain why investing in Kenya or Bolivia might seem riskier than investing in her own country. Contrast this scenario with the choice that a commercial bank manager faces when deciding to lend to high and low-income individuals within her own country.
3. Recall the concept of marginal returns to capital. When the shape of the production function is “conveniently” concave, how does this concept factor into a commercial bank manager’s decision about what interest rates to charge a poor entrepreneur and a rich entrepreneur? Give two plausible scenarios where the standard prediction of interest rates for rich and poor entrepreneurs doesn’t apply. Based on these two examples, explain why the marginal return to capital might be high for a rich entrepreneur and low for a poor entrepreneur.
4. Take the example of a poor individual who does not have any collateral, and therefore cannot obtain a loan from a standard commercial bank. What is the link between financial exclusion and moral hazard in this particular scenario? Draw a graph showing how credit markets can be inefficient when a potential borrower lacks assets that can be used as collateral to gain access to loans from standard commercial banks.
5. The principle of diminishing returns to capital might not always hold in reality. Explain why this may be the case, based on this principle’s main assumptions. How is a violation of the principle of diminishing returns related to the existence of poverty traps?
6. Consider a typical Solow-model framework for a representative entrepreneur. Her production function is given by $y = A(k)k^\alpha$. Her savings rate is s , and capital, k , depreciates at rate δ . $A(k)$ is a productivity parameter given by:

$$\begin{cases} A = A_1 & \text{if } k \leq k' \\ A = A_2 & \text{if } k > k', \end{cases}$$

where $A_1 \ll A_2$ and $A_1 < k^{1-\alpha} \frac{\delta}{s} < A_2$. Departing from the idea that the intensive use of capital is associated with high levels of productivity, show that there are two steady states for this particular entrepreneur. Explain why, in the initial stages of this scenario, poor potential entrepreneurs can get caught in a poverty trap. How might credit markets help release poor entrepreneurs from poverty traps?

7. An entrepreneur has an idea for a profitable project, but she is unsure about where to carry it out. She could implement it in Russia, where there is a possibility of political turmoil with a probability of 0.5. If there is no political turmoil, the entrepreneur's project obtains a return of 200 euros; if there is political turmoil, the entrepreneur gets nothing. The same project could also take place in Belgium, where the entrepreneur can obtain a return of 110 euros with certainty. The entrepreneur is risk neutral. Suppose that the project would cost the same to undertake in either country, and that the entrepreneur's only motivation is to maximize expected profits. In which of the two countries should she invest? Briefly explain your answer.

8. As discussed in section 1.3, state-owned rural credit initiatives generally have failed to achieve their objectives. Consider such an institution, and assume that credit supply is inelastic, and that the institution lends at subsidized interest rates. Briefly discuss potential negative consequences of subsidized credit on: (a) the efficiency of credit allocation, and (b) repayment rates. (You may wish to use a graph to sharpen your discussion.)

9. Suppose you live in a low-income community, and that the government wants to help you by granting you the right to borrow \$120 at a subsidized annual interest rate of 6 percent. Explain which of the following two strategies you would choose and why: (i) invest the \$120 in your family business to obtain an annual net return of 15 percent while incurring a cost of \$16, or (ii) deposit the money in a local commercial bank with an annual interest rate of 2.5 percent. What does this simple numerical exercise reveal about the design of government interventions to assist poor individuals' businesses?

10. A bank is subsidized by the government. For each \$1,000 loan it extends, it receives a subsidy of \$200. The bank's manager is considering extending a \$1,000 loan to two potential borrowers. Borrower A promises to give the bank 50 percent of the profit she earns from investing the loan, while borrower B promises only 10 percent of her profit. However, A can generate a gross return of \$1,200 with probability 0.8 or get zero with probability of 0.2, but B can generate a gross return of \$1,100 with certainty.

a. Which of the two projects is more socially efficient and why?

b. Which of the potential borrowers will the manager choose to finance if he aims to maximize expected profits and why?

c. Compare your answers to questions (a) and (b) and briefly explain what this simple numerical exercise reveals about government intervention in credit markets.

11. A microfinance institution charges interest rates that approach those charged by informal moneylenders. Why might the institution provide social benefits, even though the interest rate it charges is high relative to those charged by commercial banks? What sort of information do you need to assess whether the pricing strategy of this particular institution is socially optimal?