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Microfinance, Risk Management, and Poverty

Synthesis Study Based on Field Studies Conducted by
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*The views expressed here are those of the author and do not reflect those of USAID.

Glossary

Term	Definition or Description
ACP/Mibanco	*Accion Communitaria del Peru* (became Mibanco in May 1998)
AIMS	Assessing the Impact of Microenterprise Services
ASCA	accumulating savings and credit association
ASA	Association for Social Advancement (Bangladesh)
BancoSol	*Banco Solidario S. A.* (Bolivia)
BKK	*Badan Kredit Kecamatan* (Indonesia)
BRAC	Bangladesh Rural Advancement Committee
BRDB RD-12	Bangladesh Rural Development Board Rural Development-12 program
BURO-Tangail	Bangladesh Unemployed Rehabilitation Organization, Tangail
Caja Los Andes	*Caja de Ahorro y Prestamo Los Andes* (Bolivia)
CARD Bank	Center for Agriculture and Rural Development Bank (Philippines)
CGAP	Consultative Group to Assist the Poorest
chicharon	fried pork rind
C.I.D.R.	*Centre International de Développement et Recherche*
CVECA	*Caisses Villageoises D'Epargne et de Crédit Autogérées* (Mali)
DfID	Department for International Development (United Kingdom)
FGD	focus group discussion
FFH	Freedom from Hunger (USA)
FIE	*Centro de Fomento a Iniciarivas Economicas* (Bolivia)
FINCA	Foundation for International Community Assistance
GRET	*Groupe de Recherche et d'Echanges Technologiques* (France)
K-REP	Kenya Rural Enterprise Programme
kebele	local government office in Ethiopia
KUPEDES BRI	Loan scheme for small enterprises operated by Bank Rakyat Indonesia
KURK	*Kredit Usaha Rakyat Kecil* (Indonesia)
matooke	green bananas (Uganda)
MMF	Members' Mutual Fund (insurance fund for CARD Bank members in the Philippines)
MFI	microfinance institution

Mibanco	Microfinance bank established in May 1998 (Peru); formerly ACP
Munno Mukabi	Insurance mechanism in Uganda; self-help group; translates to Friend in Need Associations
NGO	nongovernmental organization
ODEF	*Organizacion de Desarrollo Empresarial Femenino* (Honduras)
PRA	participatory rapid appraisal
PRODEM	Bolivia
PULSE	Peri-Urban Lusaka Small Enterprise (Zambia)
ROSCA	rotating savings and credit association; also called a “merry-go-round”
SANASA	Federation of Thrift and Credit Co-operative Societies (Sri Lanka)
SEWA Bank	Self-Employed Women’s Association Bank (India)
SUSENAS	Indonesian acronym used to refer to Central Bureau of Statistics Household Expenditure Surveys (see p. 58, Hulme and Mosley 1996, volume 2)
taka	monetary unit of Bangladesh
TRDEP	Thana Resource Development and Employment Program (Bangladesh)
UNDP	United Nations Development Programme
UWFT	Uganda Women’s Finance Trust
WCI	Women/Child Impact Program (Save the Children USA)
WDR	World Development Report; sponsored by the World Bank
WEDP	Women’s Entrepreneurship Development Program (Bangladesh)

I. Introduction to the Study

The study presented in this report addresses the question of whether microfinance can reduce poverty. It seeks to improve understanding of the impact of microfinance services on selected non-income dimensions of poverty and emphasizes the role of assets in reducing vulnerability. The study focuses on clients from selected microfinance institutions (MFIs) in Bangladesh, Bolivia, the Philippines and Uganda.

A. Background and Purpose

Over the past decade, providers of microfinance have developed an array of models for delivering financial services to the poor that meet the dual criteria of sustainability and outreach. As programs mature, debates within and outside the industry have moved beyond questions of scale and outreach to the question of whether microfinance can reduce poverty.

While many people agree that microfinance can make a difference in people's lives, the jury is still out on the extent to which microfinance contributes to poverty reduction. Outside of Bangladesh, limited research has been done on this topic. In past years, the question of the link between microfinance and poverty has aroused much passion among providers, promoters, and others involved in the microfinance field.[1] At one extreme, the 'sustainability first' camp believes that these services reach the poor through open access. At the other extreme, the 'poverty first' camp defends the importance of targeting the poorer strata of the population to ensure that they have access to microfinance services. Outside the industry, microfinance has the reputation of being a panacea that can pull people out of poverty. Supported by convincing vignettes of poor people who have 'made it,' microfinance has garnered wide appeal as a development success.

While the passion surrounding this issue remains intense, the debates have matured to the point of acknowledging that the relationship between microfinance and poverty reduction is not straightforward. Just as the causes of poverty are complex, so is its reduction. Most people recognize that microfinance alone is not a magic bullet to get people out of poverty. It is only one of many factors that can contribute to poverty alleviation.

Today, many MFIs subscribe to a mix of goals, including sustainability, outreach to poor households, and poverty reduction. A continuing challenge they face is how to deepen and maintain outreach to poor households on a sustainable basis. An important step in meeting this challenge is to look carefully at who MFIs do and do not reach along the poverty continuum. Outside of Bangladesh, the microfinance field has paid limited attention to this issue. As Rhyne (1998) recently noted, the field knows very little about the poverty level of clients in various microfinance programs. Morduch (1998a) reinforces this view, observing that few microfinance programs have received the rigorous statistical evaluations necessary to address this question.

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[1] Rutherford (1999) describes these two groups (providers and promoters) and discusses differences in their views and concerns related to microfinance.

A related challenge for MFIs is assessing the impact of microfinance on poverty reduction. In the past, microfinance impact studies have focused largely on indicators related to changes in income and consumption. While these indicators are important, they are difficult to measure and limited in capturing the dynamic nature of poverty. In general, they reflect a somewhat narrow and static view of both poverty and impact. Findings from several previous impact studies suggest that the impact of microfinance services on income and consumption are conditional—they are directly related to the initial endowment of the household and length of time a client is in the program.

Given the limitations of income and consumption measures of poverty, growing attention within the development community in recent years has turned to the impact of microfinance services on household assets and women's empowerment. Both assets and empowerment are associated with the ability of individuals and households to deal with risk and reduce their vulnerability. Emerging evidence shows that microfinance has positive impacts in these areas across a wide range of client groups and programs. This study seeks to improve understanding of the processes through which microfinance services can and do contribute to reducing the vulnerability of clients and their households.

Another limitation of previous impact studies is that few consider client perspectives on impacts. Client perspectives are critical for understanding household and individual economic goals and how clients use financial services to pursue these goals. Client perspectives reveal that reducing exposure to risk is a major goal for households. Improved understanding of these processes opens up the 'demand side' of the microfinance equation, which is critical for designing products and services that meet clients' needs.

This focus on risk and vulnerability of clients challenges a common premise in the microfinance industry that the main role of microfinance is to promote microenterprise development. The rationale and design of many programs implicitly assume that the cash flow for loan repayment will come from the client's microenterprise, the locus of loan investment. Yet, cash is fungible. Loans are used as the client and his or her household see fit, and repayments or deposits may come from various sources of household income. Understanding household cash flow and how people repay or save is key to explaining the role played by financial services in the lives of poor households.

For a long time, impact studies have been set apart from the operations of microfinance institutions. In an industry that is largely supply-led, the studies are viewed as having little or no bearing on institutional sustainability or improved management. Nevertheless, an emphasis on risk and how clients use microfinance to deal with risk challenges this view. Risk to the clients is closely linked to risk to an institution's portfolio because risk experienced by clients affects their ability to repay loans and to stay in programs. High dropout rates, a feature of many institutions, pose a threat to sustainability. Impact studies focused on risk can reveal the appropriateness of products and services in relation to clients' needs and whether they may pose levels of risk that are too high for clients. These kind of client-centered impact studies can help the microfinance industry move toward a more demand-led approach.

The use of financial services is not well understood by much of the microfinance industry, yet it has important operational implications for going and staying down market, as well as for reaching the not-so-poor. Information of this type makes it possible to extend beyond the 'black box' of targeting and means testing to an approach that attracts the poor with appropriate products and services that support their efforts to move out of poverty.

This paper, commissioned for the World Bank's World Development Report 2000/01 (WDR), seeks to improve understanding of the extent to which sustainable microfinance programs reach poor households and contribute to poverty reduction. In keeping with three prominent themes of the World Development Report 2000/01—empowerment, security, and opportunity for poor people—the paper focuses on selected non-income dimensions of poverty, specifically those related to risk, vulnerability, and assets. Clients' perspectives on the role of microfinance in helping them reduce vulnerability have been stressed throughout the research process.

The paper has seven sections. This first section briefly discusses the scope of the study and describes the microfinance programs participating in the field studies. Section two describes the study design, including the framework that guided the field studies and literature review. It defines the concepts of risk, assets, and vulnerability as they are used in the study and discusses the methods used in the field studies. Sections three, four, five, and six synthesize the results of the field studies and literature review in sections that correspond to four main research questions: (1) Whom do microfinance programs reach? (2) What is the nature of risk facing microfinance clients and their households? (3) What strategies do clients use to deal with risk and to reduce vulnerability? (4) What is the role of microfinance services in protecting against risk ahead of time and coping with loss afterwards? The seventh section summarizes the key findings and their implications for improving the design of products, services, programs, and policies.

B. Overview of the Study

The purpose of the study is to improve understanding of the impact of microfinance services on selected non-income dimensions of poverty, specifically those related to risk, vulnerability, and assets. The study emphasizes the role of financial, physical, human, and social assets in reducing vulnerability by helping individuals and households protect against risks ahead of time and manage economic losses afterwards.

Toward this end, a team of researchers and practitioners supported by the U.S. Agency for International Development (USAID), the United Kingdom's Department for International Development (DfID), and Consultative Group to Assist the Poorest (CGAP) joined together in late 1998 in a collaborative research effort. It involved field studies of microfinance programs in four countries—Bangladesh, Bolivia, Philippines, and Uganda[2]—and a literature review that addressed the following common set of research questions:

[2] Lead researchers included Ronald T. Chua in the Philippines, Paul Mosley in Bolivia, Graham A. N. Wright in Uganda, and Hassan Zaman in Bangladesh.

- Whom do microfinance programs reach?
- What is the nature of the risks facing microfinance clients?
- What strategies do clients use to protect against risk ahead of time and cope with losses afterwards?
- What is the role of financial services in mitigating risk and coping with loss?

These questions were explored through field studies in the four countries involving microfinance clients and practitioners from seven programs. Research teams in each country explored a common set of hypotheses related to asset building, asset management, and control of assets in an effort to improve understanding of the role of financial services in reducing risk and vulnerability for poor clients and their households. In addition, each research team pursued other issues related to the impact of microfinance on reducing risk and vulnerability as relevant to the particular program or country context or to their particular research interests.

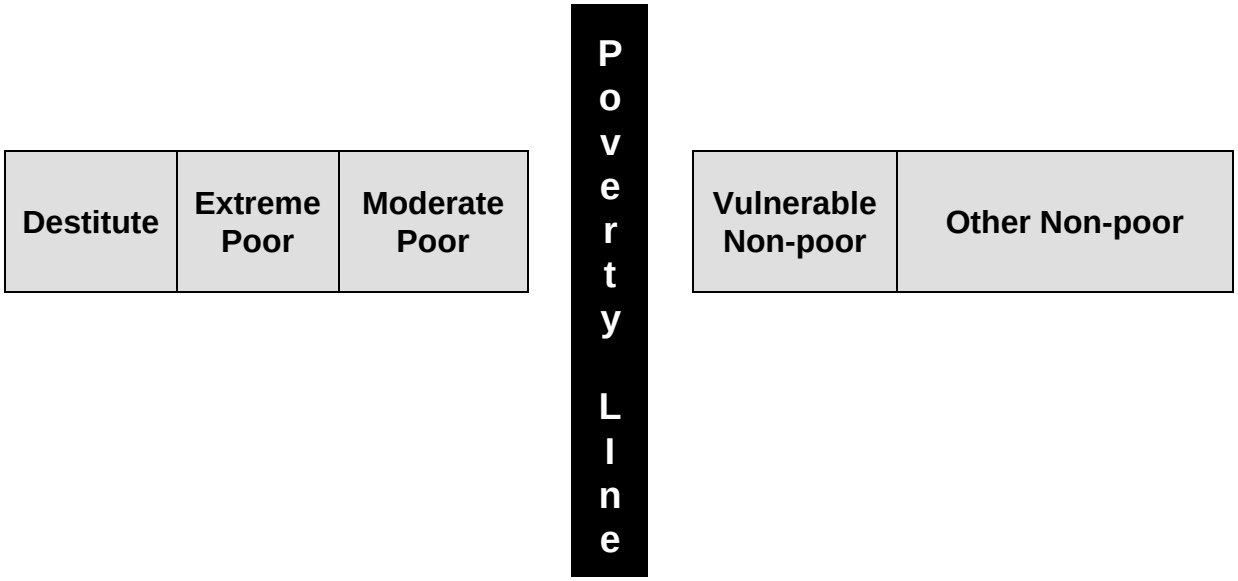
The field studies involved a mix of qualitative and quantitative research methods. The core framework included focus group discussions (FGDs), individual interviews, wealth-ranking exercises, and the application of a loan/savings use instrument. While each of the four field studies adopted a varied approach to gathering data and information, all of the studies involved interviews with microfinance clients and staff from participating MFIs and drew on relevant secondary sources of information where possible. In total, the study drew on data from field interviews with some 1,500 microfinance clients in the four countries.[3]

One objective of the study was to consider the impacts of microfinance on clients from different poverty levels. In referring to clients by poverty level, the field researchers agreed on four groups: *vulnerable non-poor* clients are in households above the poverty line but are vulnerable to slipping into poverty; *moderate poor* clients are in the top 50 percentile of households below the poverty line; *extreme poor* clients are in households in the bottom 10 to 50 percentile of households below the poverty line; and *destitute* clients are in households in the bottom 10 percent of households below the poverty line. (See Figure 1, Defining the Poor.) In all of the programs studied, the field researchers found some clients from extreme poor, moderate poor, and vulnerable non-poor households. Few or no clients were from destitute households. The largest number of clients was from moderate poor households (except for those in BancoSol, which has a majority of vulnerable non-poor clients).

[3] This figure includes original survey data collected previously but used here by Mosley in Bolivia and Zaman in Bangladesh.

FIGURE 1.

Defining the Poor



The field findings were supplemented by a review of credible findings from the available microfinance impact literature on the role of financial services in reducing risk and vulnerability and building assets.

C. Description of the Participating Microfinance Programs

The team of researchers and practitioners selected the MFIs to participate in this study using several criteria. The programs were to be running for at least five years, be operationally sustainable or close to it, and have a voluntary savings component. The seven selected institutions that met these criteria were the Bangladesh Rural Advancement Committee (BRAC) Rural Development Program; four programs in Bolivia—Banco Solidario S.A. (BancoSol), Fundacion Sartawi, Pro Mujer, and Fundacion para la Promocion y el Desarrollo de la Microempresa (PRODEM); the Center for Agriculture and Rural Development (CARD) Bank in the Philippines; and the Uganda Women's Finance Trust (UWFT). All are located in countries where a significant number of impact studies either exist or are in progress.

The programs are similar is several ways. (See Table 1, Microfinance Programs Included in the WDR Study.) Microfinance is the primary activity for all of the institutions, although their design features differ. Extending financial services to those without access to formal financial services is the common goal. Reaching the poor and/or reducing poverty is a common objective. Financial sustainability is an important, if not primary, concern within these programs. Women comprise more than half the clients in all programs, and 100 percent of the cases in CARD Bank are women clients.

The programs also have some differences. Three of the programs have an urban focus (BancoSol, Pro Mujer, and UWFT), while four have a rural focus (BRAC, Fundacion Sartawi, PRODEM, and CARD Bank). Also significant is the extreme variation in the scale of their lending activities. BRAC has over 2 million outstanding borrowers. The Bolivia programs come in a distant second with approximately 80,000 borrowers in BancoSol, 50,000 borrowers in PRODEM, and 20,000 borrowers in Pro Mujer. CARD Bank in the Philippines has approximately 27,000 outstanding borrowers; UWFT, about 8,000 borrowers; and Fundacion Sartawi, 6,500. All programs except PRODEM and Fundacion Sartawi offer deposit services; in most cases, these are involuntary savings.

Regarding design features, BancoSol, CARD Bank, and UWFT are minimalist finance programs focused on providing savings and loan services. BRAC has two types of loans: its basic lending program is a minimalist finance program, while its sectoral loans combine loans with training, technical, and marketing assistance components. BRAC also undertakes a wide range of other development programs, such as health, education, and food for development, although they do not necessarily reach the same households as the financial services. Pro Mujer, PRODEM, and Fundacion Sartawi also complement their financial services with other support services such as management and technical training. Health and family planning education are also integral to Pro Mujer's village banking program. Social empowerment is strongly reflected in the training provided to women's groups by Fundacion Sartawi, Pro Mujer, CARD Bank, and UWFT. Other features of the programs are highlighted in Table 1.

TABLE 1.

Microfinance Programs Included in the WDR Study

Institution/Purpose	Organizational Form	Geographic Coverage	Targeting Strategy	Description of Services	Performance Indicators and Interest Rates
BRAC Rural Development Program (Bangladesh) Poverty alleviation and empowerment of the rural poor	Founded in 1972 as a relief and rehabilitation program Evolved into integrated rural development program with a large-scale credit component in the 1980s BRAC Bank established in 1999	Mostly rural	Households with fewer than 0.5 acres of land and main occupation manual labor for more than 100 days per year	Minimalist group-based loans (75%) Sectoral program loans (25%), including management and technical training and marketing assistance Savings	Outstanding loans (9/98): 2,003,000 On time repayment rate, excluding arrears and advances (9/98): 83% # of savings accounts (9/98): 2,003,000 Interest rate: 15% flat
BancoSol (Bolivia)	Commercial Bank founded in 1992 Split off as a commercial wing of PRODEM	Mostly urban	Any pre-existing business	Group and individual loans Voluntary savings	Outstanding loans (12/98): 80,000 Arrears rate (+6 mo. 12/97): 2.1% # of savings accounts[a] (12/98): 46.802 Interest rate: 4% per mo. flat
Fundacion Sartawi (Bolivia)	NGO Solidarity groups and individual loans	Mostly rural	Any business one year old No borrowing from other institutions	Integrated technical assistance with individual and group loans (no savings)	Outstanding loans (12/98): 6,581 Arrears rate (+6 mo. 12/98): 4.1% Interest rate: 4.5% per mo. flat

Institution/Purpose	Organizational Form	Geographic Coverage	Targeting Strategy	Description of Services	Performance Indicators and Interest Rates
Pro Mujer (Bolivia)	NGO Adaptation of village banking methodology	Mostly urban	Women in pre-existing groups only	Cooperative groups loans Insurance in the form of compulsory savings Voluntary savings	Outstanding loans (12/98): 20,000 Arrears rate (+6 mo. 12/98): 6.0% # of savings accounts[a] 12/97: 14,029 Interest rate: 4% per mo. flat
PRODEM (Bolivia)	NGO Solidarity group methodology with wide range of services	Mostly rural	Any pre-existing business	Multiple components with group and individual loans (no savings)	Outstanding loans (12/98): 49,534 Arrears rate (+6 mo. 12/98): 2.7% Interest rate: 3% per mo. flat
CARD Bank (Philippines) Provision of banking services to poor *barangays*	Founded in 1990 as the Landless People's Development Fund Registered as a rural bank in 1998	Mostly rural	Means test based on household income, assets, and housing	Group formation Group-based loans (7 loan products) Savings Community training Death, disability, and old-age insurance	Outstanding loans (12/98): 26,691 Repayment rate: 99.8% # of savings accounts (12/98): 20,880 Interest rate: 18% flat
Uganda Women's Finance Trust (Uganda) Economic empowerment of disadvantaged women	Founded 1984 Non-bank financial institution monitored by the Central Bank of Uganda Began financial services in 1987; restructured operations in 1995	Mostly urban/peri-urban	Self selection of low income women through group-based lending methodology Staff assessment of clients' capacity to repay loans	Awareness creation Savings Group-based and individual loans	Outstanding loans (6/98): 8,022 Repayment rate: 92% # of savings accounts (estimated 6/98): 28,644 Interest rate: 30% flat; 66% effective

Source: WDR field studies.
[a] USAID, Microenterprise Results Reporting for 1997.

II. Study Design

The design of the study presented here in *Microfinance, Risk Management, and Poverty* includes a framework to guide the study, two hypotheses developed as a starting point for the research, and a description of the mix of quantitative and qualitative methods.

A. Framework To Guide the Study

The framework to guide this study includes three components: (1) definitions of risk, vulnerability, and assets; (2) sources and nature of risk; and (3) strategies to protect against risk and cope with loss, including the role of assets and financial services.

1. Definitions of Risk, Vulnerability, and Assets

An objective of this research is to clarify and build consensus on how poor people use financial resources to protect against risk, reduce vulnerability, and build assets. For the purpose of this study, *risk* is defined as the chance of a loss, or the loss itself (Dunn, Kalaitzandonakes, and Valdivia 1996). *Vulnerability* may be described as the ability of individuals and households to deal with risk. *Assets* are defined as the stock of wealth in a household, representing its gross wealth. While assets typically are thought of as things or possessions, they also are rights or claims related to property, concrete or abstract. The concept can be extended beyond the normal 'accounting' approach to include intangibles such as household relations, social entitlements, and human capital (Sherraden 1991). In this framework, vulnerability is considered in terms of the assets and range of coping mechanisms available to an individual or household to deal with shocks, economic stress events, and other downward pressures. Households with fewer assets and coping mechanisms are more vulnerable and those with more assets and coping mechanisms are less vulnerable. Increasing individual and household assets and strengthening coping mechanisms can reduce vulnerability.

While closely related, poverty and vulnerability conceptually are different. Economists typically measure poverty by income or consumption levels at one point in time, while vulnerability reflects the risk of exposure of people to downward pressures and shocks and their ability to cope with the consequences of these risks. Income poverty is a more static concept, while vulnerability is a more dynamic concept. Vulnerability captures the process of change as people move in and out of poverty. Although poor people usually are among the most vulnerable, not all vulnerable people are poor.

Building on the arguments of Rutherford (1999), the impact of financial services on reduced vulnerability may be described in terms of making available to clients 'chunks' of money that enable them to protect against risk ahead of time (resist downward pressures and exploit opportunities to increase resources when they present themselves) and to cope with economic losses resulting from crises, shocks, and downward pressures. These services enable clients to move from a reactive mode to one that offers them more choices when faced with a crisis.

A core element of the study is to improve understanding of the nexus between assets and vulnerability. To this end, the research explores the role of assets in helping households to protect against risk and insecurity, exploit opportunities when they present themselves, resist downward economic pressures, and cope with loss. It considers the management of assets within clients' households, clients' control over them, and how increasing the level and quality of assets helps households take advantage of investment opportunities as they arise.

2. Sources and Nature of Risk

For the poor, the fight to maintain a minimum economic threshold is essentially a struggle against the risks associated with frequent crises, shocks, and downward economic pressures. Sources of risk include (1) *structural factors* such as seasonality, inflation, or the vagaries of weather; (2) unanticipated *crises and emergencies* such as sickness or death of a family member, loss of employment, fires, theft, harassment, and bulldozing homes and businesses by authorities; and (3) the high costs associated with *life cycle events* such as marriage, funerals, childbirth, establishing a household, festivals, rituals, and educating children.

Depending on the source, the nature and level of risk vary. Some downward pressures and shocks can be anticipated, while others are unanticipated. Some are 'one off' (low frequency), while others repeat themselves (high frequency). The risks associated with some events are covariant (they affect all households at the same time), while others are idiosyncratic (they affect only some households). The probability of a loss occurring varies according to the particular event, as does the size of the associated loss (Rahman and Hossain 1995; Noponen and Kantor 1997; Hulme and Mosley 1996; Dunn, Kalaitzandonakes, and Valdivia 1996; Rutherford 1999; Townsend 1995; Morduch 1998a; Lund and Fafchamps 1997). Understanding the different types of shocks and downward pressures and the consequent nature and levels of risk affecting the poor is key. This knowledge can help microfinance institutions (MFIs) to design products and services that are appropriate and to support clients in dealing with them.

3. Strategies to Protect against Risk and Cope with Loss

People can do different things ahead of time to protect against risk. These actions may include diversifying livelihood activities, accumulating savings and other assets, diversifying assets to include those that can be liquidated easily, and investing in insurance. A strategy described by Rutherford (1999) is for people to manage their money well by (1) hanging on to what they have, (2) avoiding unnecessary expenditure, and (3) finding a safe place to store whatever is left over. This strategy puts them in a better position to meet needs when they arise and to take advantage of investment opportunities when they present themselves. Related strategies to protect against risk may include consolidating savings; building stocks of food, money, or other valuables; adopting risk-reducing technologies; making social investments in reciprocal or redistributive systems among households; making human investments in education and health; and making physical investments in housing, equipment, and land (Hulme and Mosley 1996; Chen and Dunn 1996; Swift as cited in Moser 1998). Osmani (1998) highlights the

importance of improving women's bargaining power, autonomy and control over decision-making, and access to resources.

After a loss has been incurred, especially one that forces or keeps an individual or household below a minimum economic threshold, people may respond in various ways. In discussing strategies for coping with an economic loss, Chen and Dunn distinguish between recurrent risks (temporary shortfalls in income) and severe risks (sharp and less reversible drops in income). Responses to recurrent risks may include (1) mobilizing labor (sometimes requiring migration or a search for alternative employment), (2) reducing expenditures, (3) modifying consumption, (4) drawing down physical stocks, (5) using savings or insurance, (6) borrowing, (7) selling or pawning assets, and (8) seeking help from friends or relatives. Responses to severe risks may include some of the above as well as intensifying activities; postponing marriage or other social obligations; entering asymmetric interpersonal dependencies; migrating; and finally, turning to drastic measures such as illegal activities, abandoning children, begging, or even suicide (Chen and Dunn 1996).

Other dimensions of coping strategies emerge from field research. Moser's research on poverty and vulnerability in poor urban communities across several regions documents various strategies used by the poor to cope with economic stress, including drawing on women's and children's labor, renting out housing, and drawing on household relations and social capital (Moser 1998). Noponen and Kantor's research in India documents borrowing and non-borrowing strategies and ranks them according to their importance (Noponen and Kantor 1997). Montgomery classifies a hierarchy of coping strategies, ranked by their degree of reversibility and value of resource commitment (Montgomery 1996).

a. The Role of Assets

Assets play an important role for poor households in protecting against risks, coping with an economic loss, and maintaining a minimum economic threshold. Drawing on the work of Sen (1981), Swift (1989), and Maxwell and Smith (1992), Moser (1998) describes the critical relationship between vulnerability and asset ownership. Vulnerability involves not only identifying a threat or source of risk but also the resilience or responsiveness of individuals, households, or communities in exploiting opportunities and in resisting or recovering from the negative effects of an insecure environment. According to Moser, the means of resistance are the assets and entitlements that individuals, households, or communities can mobilize and manage in the face of hardship. Vulnerability is therefore closely linked to asset ownership. The more assets people have, the less vulnerable they are. The greater the erosion of people's assets, the greater is their insecurity.

Assets may be classified in many ways, with distinctions being made between enterprise assets and individual and household assets; between productive and non-productive assets; between tangible and intangible assets; regarding the ease with which assets can be liquidated; and among financial, physical, human, and social assets (Barnes 1996; Chen and Dunn 1996;

Carney drawing on Scoones 1997; Moser 1998; Sherradan 1991).[4] In this study, we start with the following classification of individual and household assets:

> ***financial assets*:** cash, savings, loans and gifts, regular remittances or pensions, and other financial instruments;
>
> ***physical assets:*** housing; buildings and land, and improvements to these; land and other physical items that maintain or increase in value, such as gold jewelry; and physical items that decrease in value, including consumer durables such as household appliances, shoes, clothing, and vehicles; and productive assets, including fixed-enterprise assets;
>
> ***human assets:*** skills and knowledge, ability to labor, good health, self-esteem, bargaining power, autonomy, and control over decisions; and
>
> ***social assets:*** networks, group memberships, relationships of trust, access to wider institutions of society, and freedom from violence.

At any one time, assets can be built up, depleted, or exhausted. Patterns of asset accumulation, divestiture, or liquidation and of assuming liabilities indicate strategies employed by households and individuals to take risks, protect against risks, and cope with losses (Barnes 1996).[5]

Assets can reduce vulnerability in several ways. For example, they can be sold or drawn down to meet an immediate need; they can increase the credit worthiness of a household, thereby improving their ability to borrow during a crisis; and a larger and more diversified asset base can reduce covariant risk (Zaman 1999).

Women's empowerment, as both a human and social asset, is an important dimension of vulnerability. Viewed against a backdrop of patriarchy, defined by Cain, Khanum, and Nahar (1979) as a "set of social relations with a material base that enables men to dominate women," women's empowerment can be thought of in terms of improving intra-household gender relations (Naved 1994; Kabeer 1994; Hashemi et al. 1996 as cited in Zaman 1999). It also can be viewed in terms of improving women's interaction outside the household and in terms of acquiring skills, knowledge, and confidence that such interactions can bring (Amin et al. 1994, White 1992, and Mahmud 1994 as cited in Zaman 1999).

Within households, asymmetries in rights and obligations based on gender translate into differences in women's ability to cope with economic difficulties (Sen 1990, Elson 1991, and Moser 1993, as cited in Moser 1998). Outside of households, poor women frequently experience isolation, limited social connections, lack of confidence, underdeveloped social skills, limited participation as members of groups, demeaning forms of social relationships, or lack of relationships of trust within their communities. Such factors affect women's ability to exploit

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[4] For a more detailed discussion of assets, please refer to the 1996 AIMS paper by Carolyn Barnes, *Assets and the Impact of Microenterprise Finance Programs.*

[5] In this study, we recognize that assets may be acquired and used for both the enterprise and the household, or by the household and an individual or individuals within the household, and that this use may change over time (Barnes 1996).

opportunities and to respond to downward economic pressures and shocks, and they relate not only to poor women's position vis-à-vis men, but also to other class-based relations of dependency, exclusion, and marginalization (Kabeer 1998).

Working from the assumption that poor women's unequal social relations have a material base, it follows that women's ability to contribute income to the household is an important route toward their empowerment (Kabeer 1998). At the personal level, contributing income can provide women with a greater sense of self-worth, an ability to carve out a separate sphere for herself, and the capacity to have more of a say in her own future. It also can change family relationships by increasing women's bargaining power in household decision making, which may include decisions regarding the use of income, the use and management of financial services and other chunks of money, and the use and management of household and individual assets. Outside the household, in the wider community, women's ability to generate income and control assets may increase their social interactions; provide them greater standing in the community; and enhance their ability to offer hospitality, call on help from neighbors, and offer help when called upon (Kabeer 1998).[6] This ability provides them with a wider range of options when faced with a shock or economic stress event.

Indicators of women's empowerment are wide ranging (and easily contested), as reflected in the microfinance impact literature on this topic**.** Many also are cultural bound. Taking a cue from Kabeer (1998), it is possible to study only a small piece of the puzzle at any one time. For the purpose of this study, we focus on four specific dimensions of women's empowerment: women's ability to contribute income to the household; their increased bargaining power and/or autonomy within households on decisions regarding the use and management of loans, savings, and other individual and household assets; increased self-esteem and self-confidence (human assets); and increased interactions outside the household (social assets). These variables relate women's empowerment to assets and vulnerability.

b. The Role of Financial Services

Within our framework, financial services, including credit, savings, and insurance, are seen to contribute to reduced vulnerability by:

[6] Kabeer (1998) sees empowerment as a widely contested concept that varies across class, time, and space. Because empowerment is a multidimensional process of change, it cannot be reduced to any single aspect of process or outcome. Moreover, impacts on empowerment perceived by outsiders may not necessarily be those most valued by women themselves. According to Kabeer, empowerment can be seen as the expansion in the range of potential choices available to women. How they exercise this choice and the actual outcomes reflected by their choices may vary widely, which may explain, in part, the widely different findings from studies on the impacts of microfinance on women's empowerment, which focus on processes and outcomes.

- increasing income earning sources;
- building the level of individual and household assets (physical, financial, human, and social);
- changing the composition or mix of individual and household assets; and
- increasing women's human and social assets.

With a stronger base of income and assets, households and individuals can smooth income and consumption and improve their resilience to shocks and downward pressures. At a certain level, clients are in a better position to invest in higher-risk, higher-return activities. To the extent that they provide chunks of money at the appropriate time and with the right terms, financial services enable clients not only to protect against risks, but also to take advantage of opportunities when they arise.

Financial services play a role in building assets in several ways. First, loans may be used directly or indirectly to accumulate a productive asset. The asset acquired may lead to increases in income and further accumulation of assets or consumer durables. Alternatively, a loan may be used to invest in a human asset such as health and education, adopt a risk-reducing technology, or diversify the individual or household asset base (Barnes 1996).

Second, financial services may help a household better manage its existing asset base or reduce its liabilities. Access to loans provides a security or fallback position if difficulties are encountered. Access to emergency or consumption loans can enable households or individuals to meet unexpected demands for cash without having to sell or pawn key income-generating assets or withdraw children from school (Barnes 1996). Access to voluntary savings accounts may lead to shifts from non-interest-bearing cash savings to interest-bearing savings. Voluntary savings also may lower the risk of savings, increase the absolute amounts saved, and enable lump sum expenditures that otherwise would not be possible. They also may increase women's capacity to control savings and other assets (Barnes 1996). Financial services provided on a timely basis are a way for poor people to turn many small savings into large lump sums that enable them not only to protect against risks, but also to take advantage of investment opportunities when they present themselves (Rutherford 1999).

Third, both the financial services and the social intermediation role of microfinance programs may build human assets by improving self-esteem, bargaining power, or autonomy of clients. These human assets can give women participants more control over decision making and enable them to enter leadership positions.[7] Social intermediation also may contribute to an increase in social assets, such as networks, group memberships, relationships of trust, and access

[7] Edgcomb and Barton (1998) define social intermediation as the process through which investments are made in developing both human resources and institutional capital, with the aim of increasing the self-reliance of marginalized groups and preparing them to engage in formal financial intermediation. Village banking, solidarity groups, and self-help groups are forms of social intermediation that lead to forming a new type of organization through which the poor can relate to others in society, and through which members can develop a substitute for the collateral they lack. By fostering collaboration and trust among members of society, these groups are able to reduce the transaction costs of doing business in that society.

to wider institutions of society. These dimensions of women's empowerment may strengthen women's ability to access and manage resources necessary to protect against and cope with risks.

B. Hypotheses

Based on the above framework, two hypotheses were developed as a starting point for this exploratory research:

Hypothesis 1: *Financial services reduce the vulnerability of poor individuals and households by providing access to 'chunks' of money to protect against risk and cope with shocks.*

Financial services help protect poor clients against risk by

- providing chunks of money to build assets (selected financial, physical, and human assets; risk-reducing technologies);
- providing chunks of money to better manage cash flow and assets;
- increasing the diversification of household assets;
- offering a place to safely store savings; and
- increasing women clients' control over assets.

Financial services help poor clients cope with shocks by

- providing savings or emergency loans to draw upon; and
- building assets that can be pawned, mortgaged, or sold.

Hypothesis 2: *Social intermediation combined with financial services contributes to reduced vulnerability and increased empowerment.*

Social intermediation combined with financial services help women clients by

- building their human assets (skills and knowledge, self-esteem, bargaining power, and control over decisions);
- increasing their social assets (social networks, membership of groups, relationships of trust, and access to wider institutions of society).

C. Methods

The research used a mix of quantitative and qualitative methods to explore these hypotheses. The consistency of findings across countries and methods suggests the strength of this 'mixed method' approach.

1. Description of the Methods Used

To explore the two hypotheses, the research involved a mix of quantitative and qualitative methods. The qualitative instruments included focus group discussions (FGDs), individual in-depth interviews, wealth-ranking, and a loan and savings use tool. Each of the following four field studies adopted a varied approach to the gathering of data and information:

- **Bangladesh.** Quantitative methods included using 1995 survey data for 547 Bangladesh Rural Advancement Committee (BRAC) clients and a control group of 525 eligible non-members in ten villages in Matlab district. To assess the impact of the 1998 floods, field interviews were conducted with 20 BRAC borrowers and BRAC credit staff from two districts, Matlab and Manikanj. The empowerment analysis used 1995 survey data collected from 1,568 ever-married women in Matlab district, including 379 BRAC members and 1,189 eligible non-members.
- **Bolivia.** Clients of four MFIs were surveyed using both qualitative and quantitative methods. The quantitative component was composed of a survey questionnaire of 15 to 30 borrowers from each MFI and a smaller number for the control group. The questionnaire partially replicated a similar survey undertaken with BancoSol clients in 1993. It allowed for some comparisons to be drawn. FGDs were conducted with a smaller number of borrowers, and the key informant interviews encompassed MFI staff, clients, and program dropouts.
- **Philippines.** FGDs involved 68 women clients of the Bay Branch, Center for Agriculture and Rural Development (CARD) Bank in the Philippines. In-depth interviews were conducted with five Bay Branch clients who were program “dropouts” or former clients of CARD Bank.
- **Uganda.** Qualitative methods were used in Uganda. In addition to FGDs and individual in-depth interviews, the qualitative methods included Venn diagrams to assess social relationships. The study also used participatory rapid appraisal (PRA) techniques such as seasonality calendars, time series questions related to crises, asset ownership and asset control, and life cycle pressure profiles. A total of 447 Uganda Women’s Finance Trust (UWFT) clients and non-clients were contacted through at least one of these techniques.

2. Strengths and Limitations of Mixed Methods and of the Qualitative Methods Used

Although the four field studies used different mixes of qualitative and quantitative approaches, the consistency of the findings across countries and methods suggests the strength of this ‘mixed method’ approach. The substantial number of respondents, solid and systematic fieldwork, and richness of the interview data lend further credibility to the conclusions. While large sample surveys across countries might have allowed for the findings to claim greater rigor for themselves and to be generalized to larger populations, the pattern of similar findings across countries and methods provides a base of support for the hypotheses being studied and their underlying theoretical propositions.

While the qualitative methods cannot measure the magnitude of impact, they can help bring understanding to the process and direction of change and to the "why and how" when something happens. The focus of this research—how clients use financial services in the face of risk—lends itself to such an approach. Comparisons with previous studies on microfinance and poverty enhance the robustness of the findings. Indeed, the synthesis paper does not stand apart from the literature, but integrates the field results with other quantitative and qualitative studies.

In general, qualitative methods often are seen to be of limited use in impact studies because they do not deal effectively with the issues of attribution and self-selection. *Attributing* impacts or changes to programs can be dealt with by the inclusion of non-client control groups among respondents, usually in larger quantitative surveys. Where quantitative methods might achieve more rigorous findings on attribution, the qualitative approach offers more details about the process of poverty alleviation and other impacts. An approach to attributing change to microfinance programs is to test the counterfactual hypotheses (that is, what people would have done in the absence of microfinance services). This approach poses extremely difficult methodological problems to both qualitative and quantitative research. The problem of *self-selection* is perhaps the most difficult methodological issue to address in impact studies. It is extremely challenging to determine and control for the fact that clients with a better chance of succeeding in the program may be the ones to join in the first place. Quantitative studies have tried to address this problem with complex statistical analysis, but with mixed success. In general, controlling for self-selection is an extremely difficult issue to deal with in either quantitative or qualitative studies, and there is no perfect solution.

One limitation of the field study data is that the researchers did not interview or otherwise include significant numbers of the program dropouts, or former clients, of the MFI programs[8]. By definition, it is assumed that those who stay in the program are those who value the service. Those who leave may find the products are ill suited to their needs or the costs of the services exceed the perceived benefits. Some may value access to the financial services, however, while finding that they do not have an immediate use for the financial services (Edgcomb and Garber 1998).

Overall, an exploratory approach and mixed methods proved to be a good fit, given the purpose of this study and the six-month time frame. Research and thinking about microfinance, poverty, risk, and vulnerability has been evolving toward a more complex and nuanced picture. Attempts to assess the impact of MFIs typically use quantitative methods and focus on established income indicators of economic and social welfare of clients and their households. With the evolution of thinking about poverty, risk, and vulnerability, the qualitative methods of this research represent a welcome departure from typical approaches. At the same time they are integral to good research and can complement quantitative approaches and findings. Qualitative methods can explore and identify the hypothesis to be tested by quantitative methods. At different stages in the research process, they also can be used to reformulate the hypotheses or probe reasons behind quantitative findings. Looking forward, the FGDs and in-depth interviews

[8] The Philippines study did include in-depth interviews with five dropouts.

undertaken in these four countries could contribute to the design of large-scale household surveys on the impact of microfinance on risk and vulnerability.

The literature on poverty itself has slowly broadened from a (relatively) narrow income- or consumption-based concept to include assets, risks, and vulnerability. In crafting an understanding of these concepts, qualitative methods are helpful in capturing their meaning, complexity, and dynamics for clients from poor households. For example, development thinking increasingly has accepted the importance of social capital as an asset for poor households. Although some quantitative methods have been used to study social capital as an asset, much of this research lacks robustness, and controversy exists over what should be studied. In the context of this study, it was clear that social capital was best explored using qualitative methods.

III. Whom Do Microfinance Programs Reach?

The question of who microfinance programs reach in terms of the poverty level of client households is important for several reasons. First, many microfinance programs seek to reduce poverty by targeting financial services to the poor either directly (for example, through means testing) or indirectly (for example, through products and services designed to attract the poor)[9]. Yet, within the industry, very little analysis of the actual poverty levels and characteristics of program clients has occurred (Rhyne 1998). Few programs have information on how many clients are poor when they enter the program, so it is difficult to assess the effectiveness of their targeting methods. Understanding the poverty level of clients is an important starting point for assessing the impact of microfinance on poverty and for improving the design of products and services toward this end (Mathie 1998; Zaman 1998).

Second, it is widely accepted that the poor are a heterogeneous group and that the impact of microfinance varies across different groups among the poor. The poverty level (usually measured by income) and initial endowment (usually measured by assets) of clients and their households are key factors that condition impacts (Hulme and Mosley 1996; Zaman 1998). Even if programs have information on the number of poor people they reach, few have detailed information on which groups among the poor they service. Consequently there is very little insight into what their needs are, what types of products and services are most appropriate, and what types of impacts might be expected.

A third and related issue concerns program goals. If reducing the severity of poverty is the goal, then the poverty level of poor clients when they start out in a program is important to know. Unfortunately such information is rarely collected. If reducing the incidence of poverty is the goal (that is, reducing the proportion of people below the poverty line), then it is important to know the breadth of outreach to poverty groups either already below or at risk of falling below the poverty line (Zaman 1998).

Fourth, understanding the nature of poverty and how that nature affects clients' money management strategies can help design products and services that are appropriate for different groups and can support them in reducing their vulnerability. It is a matter of knowing the market.

Fifth, and finally, most microfinance programs seek donor or other public funding to improve and expand their programs based on the premise that their programs reduce poverty. Assessing the extent to which programs actually reach poor or vulnerable people would seem to be a logical first step in justifying this outside support.

In addressing this question of whom do microfinance programs reach, the findings from the World Bank's World Development Report (WDR) field studies are used primarily to illuminate clients' perspectives on poverty and vulnerability, and the nature of poverty for clients at different poverty levels. In addressing the question of the effectiveness of microfinance

[9] Not all programs seek to reduce poverty by targeting poor clients. Some programs seek to reduce poverty indirectly by targeting non-poor clients who operate enterprises that may employ poor people (Hulme and Mosley 1996).

programs in reaching clients from households at different poverty levels, the study drew primarily on the broader microfinance literature, including impact studies, evaluations, and targeting studies. (See Annex 1, Findings from the Literature on Which Groups among the Poor Microfinance Programs Reach.) The field studies themselves did not generate data to address this latter question because they did not use representative samples (except in the case of Zaman's quantitative survey data from Bangladesh).

The four field studies and literature review show that poverty has different meanings for different people (Wright et al. 1999). As described by Zaman (1998), these differences are reflected in a range of household-level poverty indicators and measures in use. The *income approach*, for example, measures household income, consumption thresholds, or utility maximizing behavior. A common income approach for measuring poverty is to estimate the relative poverty level of households by assessing their income position compared to one or more nationally defined poverty lines (Zaman 1998; Chen and Snodgrass 1999; Barnes and Keogh 1999; Dunn 1999). The *basic needs approach* uses indicators such as health, education, food, water, and shelter (Navajas et al. 1996). The *capability approach* sees that material goods are not an end in themselves, but rather a determinant of one's capability to function. Other approaches consider lack of access to consumption-smoothing mechanisms or food-consumption-based indicators. Proxies often are used for assessing the poverty level of clients. Such proxies include, for example, observable wealth-based indicators such as housing quality, size of land holdings, other household asset measures, the existence of a steady source of income; employment status, children in school, or food consumption measures (Mathie 1998).

Participatory rapid appraisal (PRA) approaches, such as wealth-ranking and focus group interviews discussions (FGDs), are useful for understanding client and community-centered perspectives on poverty and for gaining insights into the dynamics of poverty reduction at the individual and household levels. These approaches recognize the existence of 'multiple realities' for the poor and value the perceived realities of clients themselves (Chambers 1997 as cited in Hulme 1997). This approach often includes indicators that go beyond material well being. Such indicators may include, for example, aspects of poverty related to social status, personality, freedom from violence, insecurity, and humiliation, and the ability to exploit opportunities and to deal with downward pressures when they arise. Taken as a whole, these variables begin to paint a picture of both the material and non-material dimensions of poverty.

Given the wide range of poverty concepts and indicators employed in the microfinance field, it was not possible to come up with any one crosscutting definition or measure of poverty. Moreover, such a definition would be incompatible with an effort to understand poverty from the perspective of clients and practitioners and to report findings from different impact studies. Consequently, in our discussion, reference to poverty is used in a broad sense to mean relative deprivation.

A. Clients Perspectives on Poverty and Vulnerability

People usually do not like to classify themselves as poor, because this tends to be demeaning and damaging to their self-esteem. Microfinance clients participating in this study are no different. In most cases, clients feel fortunate to be able to meet their basic survival needs and see themselves as relatively better off than many in their communities. Others who began as poor as their neighbors are aware of their relative improvement in living standards since joining a program. Typically, these clients consider themselves as 'not rich, but not so poor.'

To obtain clients' and practitioners' perceptions of poverty within their communities and the characteristics of clients from households at different poverty levels, the studies used wealth ranking and other PRA techniques. Loan officers, program staff, and clients were asked to define the characteristics and indicators of poverty and wealth in their communities; to describe the characteristics of extreme poor, moderate poor, and vulnerable non-poor households; and to place a selected group of clients they know into these categories. Clients further offered their own definitions of poverty in the FGDs.

Yesterday's Non-poor…Today's Poor
(It Could Happen to You…Yes, Even You)

Unlike most microfinance clients, Mrs. Muwanga had limited experience working in the informal sector when she received her first loan from the Uganda Women's Finance Trust (UWFT). Her husband was a lawyer and provided well for her and their children, who were enrolled in boarding schools and Makerere University. They lived comfortably in a five-room house. In April 1997, however, her husband suffered a stroke and since then has been unable to work. They have withdrawn the children from school and university, and Mrs. Muwanga finds herself the major contributor to the household. Her first business venture was the baking and sale of cakes. She made a small profit on her first loan of Ush. 80,000. During the second loan cycle, she was less lucky. She purchased some bad flour and had to withdraw her savings and sell off her cooker to repay the loan. After this experience, she leased school canteen space and has begun a new business providing food and snacks to the children and their teachers. Mrs. Muwanga also participates in a rotating savings and credit association (ROSCA), which operates within her UWFT group. She used her ROSCA funds to finance a poultry business, but this also failed because of an epidemic.

Table 2, Criteria for Wealth: Ranking Clients by Country and Program, lists the characteristics of these three poverty groups as defined by clients and practitioners in three of the countries. Included in these definitions across countries is a mix of income, basic needs, and proxy measures. Some interesting similarities emerge: all of the extreme poor groups were characterized by their limited ability to send children to school, status as renters rather than homeowners, limited social connections, and low confidence and self-esteem, especially among women. Social problems such as alcoholism and domestic violence were notable. The moderate poor were in a better position to educate their children, had better housing, ate more than one meal per day, began to acquire appliances and other consumer durables, and had at least one

regular source of income. Women were more active outside the home, and the families had established relationships of trust within their communities. The vulnerable non-poor were relatively better off, with children in private secondary schools and even universities, status as owners of solidly built homes, more expensive and higher status consumer durables, land ownership, a steady source of income, savings, and positions of leadership within their communities. This description, however, masks the tenuous nature of their lives. Lacking insurance or social security, they can easily fall into poverty as a result of a shock. Overall, the findings show a consistency in perspectives on poverty and vulnerability. They suggest the importance of the consumption of three meals a day, improved education and housing, a steady source of income, and the accumulation of other physical and social assets as pathways toward reduced poverty.

TABLE 2.

Criteria for Wealth: Ranking Clients by Country and Program

Country/Program	Extreme Poor	Moderate Poor	Vulnerable Non-poor
Philippines/Center for Agriculture and Rural Development (CARD) Bank[a]			
Income/wealth measures	Irregular income sources about PhP500 per mo.	Regular income about PhP1,000 per mo. Consumer durables such as TV, fan	Regular income about PhP3,000 per mo.
Basic needs measures	Some children in elementary school Renters Landless Dilapidated dwelling Irregular meals	Children in high school Owns house Concrete walls but shared water Three meals per day	Can finance university education Owns concrete house with utilities Three meals per day Can eat at fast food chain
Proxy measures	Withdrawn and quiet Not a member of any organization	Articulate CARD Bank member but not Center leader	Leader in community, including in CARD Bank
Uganda/Uganda Women's Finance Trust (UWFT)[b]			
Income/wealth measures	Irregular employment Household lacks capital to start a business Insufficient savings to access loans from MFIs	Some savings for contingencies Consumer durables (b/w TV, radio, bicycle) Low-paying but steady work School fees sometimes paid in installments Small amounts of working capital for microenterprises Sufficient savings and time to access loans Payment of school fees for children of relatives (orphans)	High-quality appliances and domestic servants Has private transport (not dependent on public transport) Steady income from multiple sources Husband and wife both work; motivated by desire for a higher standard of living Larger amounts of capital for enterprises

Country/Program	Extreme Poor	Moderate Poor	Vulnerable Non-poor
Basic needs measures	Children not regularly in school Renters Dilapidated dwellings Children and other household members frequently sick One meal per day	Usually rent housing More than one meal per day, but diet not balanced Children in day school	Children in boarding school Own concrete house with utilities Can afford hospital care
Proxy measures	Lots of children Children not cared for adequately Social problems such as frequent domestic quarrels, alcoholism Lack of confidence among women Undeveloped social skills among women	Children clean Good-quality bedding Cannot afford hospital care Less domestic violence Women more active in groups Relationships of trust within the community and among peers	Parents communicate with children's teachers Clean and happy children Women are community leaders Socially connected Good, clean bedding Involved in political decision-making processes
Bolivia/Pro Mujer[a]			
Income/wealth measures	Beggars Women work in laundry or, in rural areas, farm mini-plots	Casual work in construction and security	Government workers who have lost jobs
Basic needs measures	Lack of housing, or homeless Children not in school Inadequate nutrition; diet consists of food residue Dress with donated clothes	Renters of rooms No running water and/or electricity Children in school and/or work Inadequate diet Wear worn clothes	Lost houses because unable to repay debts and have become tenants Children in school
Proxy measures	Lack of personal hygiene Families with more than six children Alcoholism	Families with more than six children Community cooperation Enjoy spiritual peace	Families with fewer than four children Alcoholism Spouses engaged in domestic arguments

Note: This table combines criteria defined by staff and clients.
[a] Wealth ranking of clients only.
[b] Wealth ranking of clients and non-clients.

B. Findings from the Four Field Studies

The findings from the focus group discussions, individual interviews, and other secondary information on clients generally suggest that a majority of clients in each of the seven programs studied are in the moderate poor group, followed in number by the vulnerable non-poor group. The Uganda program involves a few clients in the extreme poor group, the Philippines program involves some, and the Bolivia programs almost none. The Bangladesh Rural Advancement Committee (BRAC) has the largest proportion (and largest absolute number) of clients in the extreme poor group—40 percent of their 2 million clients. None of the programs included clients in the destitute group, nor did the programs reach clients considered to be in the other non-poor group. (See Table 3, Whom Do the Field Research Programs Reach?)

Whom the programs *do not* reach also is interesting to note. An eligibility requirement for accessing loans for several of the programs in this study is a regular source of household income. This requirement automatically excludes many of the extreme poor from these programs. At the same time, the extreme poor perceive even the smallest loan repayments to be very risky, a factor that discourages them from entering microfinance programs. But self-exclusion is not limited to the extreme poor. In Uganda the non-poor and wealthy are said not to join because the loan amounts are too small to be worth all the effort. In addition, the weekly meetings are viewed as being too time-consuming and onerous for "busy mobile businessmen" (Wright et al. 1999).

TABLE 3.

Whom Do the Field Research Programs Reach?

	Bangladesh (BRAC)	Bolivia (four programs)	Philippines (CARD Bank)	Uganda (UWFT)
Destitute	Negligible	Negligible	Negligible	Negligible
Extreme poor	~40%	Almost none	Some	Few
Moderate poor	~35%	Many	Many	Many
Vulnerable non-poor	~25%	Many	Some	Many

Note: Estimates made by field research teams are based on available information, including findings from secondary research, individual interviews with staff and clients, and focus group discussions.

1. Findings from Bangladesh

The Bangladesh Rural Advancement Committee (BRAC) targets households with fewer than 0.5 acres of land and where the main occupation of the household is manual labor for more than 100 days per year. Most BRAC members have rural agricultural-based livelihoods and a majority are women.

While the Bangladesh fieldwork did not explore client definitions of poverty or involve a participatory wealth-ranking exercise, the researcher's 1998 D.Phil. dissertation focused on BRAC's poverty-targeting approach and its poverty impacts (Zaman 1998). In this research, the poverty level of borrowers' households was proxied by the size of land holdings: the extreme poor had fewer than 10 decimals of land; the moderate poor had 10-50 decimals of land, and the vulnerable non-poor had 50-200 decimals of land (Zaman 1998). Drawing on Zaman's study of 3,521 households in 14 villages, findings regarding whom BRAC reaches follow:

- Using BRAC's wealth-based targeting criteria of fewer than 0.5 acres of land, the study found that 72 percent of BRAC clients actually met this target, while 28 percent did not.
- Using an alternative consumption-based poverty line measure, the study found that 72 percent of BRAC members within the target group are below the poverty line, and 45

percent of BRAC members outside the target group are below the poverty line. Overall, two-thirds of BRAC member households are below the poverty line.

- Those above the poverty line (the vulnerable non-poor) compared to those below the poverty line (the moderate and extreme poor) are significantly wealthier in terms of value of land and non-land assets. They are more educated, their households are smaller, and they have a lower dependency ratio. Household heads are older and less likely to be manual laborers.
- The differences between the extreme poor and the moderate poor are less marked. No significant differences exist in terms of household size, number of earners, and the age and sex of household head. There are differences in terms of the extreme poor having lower wealth (asset) levels, higher dependency ratios, and lower education levels. The household head of an extreme poor household is more likely to be a manual laborer.
- While BRAC's clients are not a homogeneous group, a majority of clients are below the poverty line. Moreover, compared to other large MFIs, the extreme poor are well represented in BRAC.
- Targeting has become less strict over time. Newer members entered the program less poor than older members. The pattern is not linear, however.

2. Findings from Bolivia

Poverty reduction is a goal for all four programs in Bolivia. While they reach many urban and rural poor, the field research suggests that a majority of borrowers do not fall below the poverty line.[10] Comparing clients to an income-based poverty-line measure, a majority of those participating in the WDR interviews are above the poverty line: 86 percent of BancoSol clients interviewed, 73 percent of Pro Mujer clients interviewed, 78 percent of PRODEM clients interviewed, and 74 percent of Fundacion Sartawi clients interviewed.[11]

Pro Mujer has the deepest poverty outreach of the four Bolivian programs. It targets women who are members of well-established women's groups or groups newly formed for the express purpose of obtaining Pro Mujer services. Pro Mujer encourages the participation of women who want to start new microenterprises, as well as those with existing establishments. The age range of members is broad, extending from early twenties to mid-sixties. Most women are married or in stable relationships. Close to 80 percent of the school-age children of clients are in school. Close to one-third of these children work in their parents' businesses, often in addition to attending school. Members are divided among traders, producers, and service providers.

Pro Mujer clients are from urban households. Many own their own homes or are in the process of acquiring this asset. They also benefit from multiple income sources. While a client herself may earn a low return from her microenterprise, she may benefit from the contribution of

[10] The borrowers covered by this survey are clients of the El Alto, La Paz, or nearby branches of the four institutions.
[11] Using an unsatisfied basic needs measure of poverty, Navajas et al. 1996 found substantially fewer non-poor clients in BancoSol (64 percent non-poor and 36 percent poor) PRODEM (19 percent non-poor and 81 percent poor) and Fundacion Sartawi (24 percent non-poor and 76 percent poor).

either a spouse or a child who earns a salaried income. The result is a household income at or above the poverty line (Mosley 1999).

Among Pro Mujer clients below the poverty line, all were in the moderate poor group (those with incomes more than half the poverty line) (Mosley 1999). While none of the women participating in the in-depth interviews were in the extreme poor group (those with incomes less than half the poverty line), a few of the women had experienced recent crises and found themselves temporarily cash poor in terms of income, despite their asset levels (for example, many owned their houses).

3. Findings from the Philippines

The Center for Agriculture and Rural Development (CARD) Bank targets women from resource-poor households through a means test to screen for household income levels, assets, and housing conditions. The program was established to reduce the vulnerability of clients' households by diversifying income sources. Because this is to be achieved by helping women initiate new income-earning activities, the CARD Bank further requires that the household have at least one pre-existing source of income, usually the husband's casual wage labor. This requirement helps to ensure that the loans will be paid back during the start-up phase of the business.

The wealth-ranking and focus group discussions suggest that CARD Bank Bay Branch clients are not from the poorest households in their community, although they do appear to fall below the poverty threshold. They are enterprising and do not beg, scavenge, or rely on handouts. They engage primarily in resource-dependent informal enterprises such as fishing, farming ornamental plants, and trading in agricultural commodities and personal care products. These women mostly are in their mid-twenties to early forties. A quarter have finished high school and taken some college courses. At least one other family member in their households earns income, mostly from casual or part-time labor. Among those interviewed, decision-making is a joint effort by the husband and wife for 40 percent and is individually led by women for 30 percent.

In assessing differences in the characteristics of clients interviewed by length of time in the program, older CARD Bank Bay Branch clients (in the program more than 18 months) tend to have more formal education and are more likely to consider their households to be jointly managed by the husband and wife. Reflecting the stabilization of their microenterprises since joining their program, these older clients are more likely to have a full-time source of income. Newer members are more likely to have casual or part-time sources of income.

An interesting finding in the Philippines is that the clients generally consider themselves to be better off than the staff do. Out of the 17 clients the staff ranked as extreme poor, only one of these clients ranked herself in this category. The other 16 considered themselves to be in a higher category. Of the 32 clients ranked by staff as moderate poor, only nine actually considered themselves to be so. The rest classified themselves as vulnerable non-poor. More congruence existed between staff and clients in the vulnerable non-poor category than in the extreme and moderate poor categories.

4. Findings from Uganda

The Uganda Women's Finance Trust (UWFT) targets low-income urban and rural women. Clients first select themselves into groups, and then staff members screen each applicant to assess her capacity to repay the loan.

Table 2 lists the characteristics of the extreme poor, moderate poor, and vulnerable non-poor as defined by UWFT staff and clients in wealth-ranking exercises and focus group discussions. Using these classifications, the researchers found that most UWFT clients appear to be in the upper two groups, ranging from moderate poor to vulnerable non-poor households. General characteristics include their ability to meet basic household needs (with a varied range of difficulty), large numbers of dependents, more than one source of income, children in school, and the ability to meet some of their medical bills. Clients often are members of several financial and social groups. A typical client is a middle-aged woman between the ages of 30 and 39 years. An estimated one-third of all clients interviewed are single, widowed, or divorced, a proxy indicator for household headship. Most are self-employed in small trading enterprises (selling *matooke* [green bananas], charcoal, food and drinks; operating kiosks or grocery shops), service activities (running small hair salons or restaurants), light manufacturing, or agriculture activities (raising chickens or cut flowers). In some cases, women employ others in their enterprises. Clients described themselves as definitely not rich, but not poor.

C. Findings from the Literature

A review of literature available on the outreach of microfinance programs by poverty level generally corroborates the field study findings on the substantial participation of moderate poor and vulnerable non-poor clients in microfinance programs. A review of more than 50 recent impact studies found information on the poverty level of clients in 18 of them. The studies use different measures of poverty (income/consumption measures, wealth/physical asset measures, and participant-defined measures), so the findings are not comparable in a strict sense. A pattern, however, repeats itself across a range of studies and programs: limited participation of clients from extreme poor households and substantial participation, and in some cases majority status, of clients from vulnerable non-poor households. In general, a majority of microfinance clients in the programs studied cluster just above and just below the poverty line.

The 18 studies (encompassing 20 microfinance programs) had data on the proportion of clients within or outside their study-defined poverty groups. Among these 20 programs, 11 had a majority of clients outside the poverty group, and 9 had a majority of clients within the poverty group. (For definitions and data, see Annex 1, Findings from the Literature on Which Groups among the Poor Microfinance Programs Reach.)

Data from 13 programs further divided program clients within their study-defined poverty groups into those who are more and less poor. (See Table 4, Proportion of Extreme Poor MFI Clients in 13 Programs.) Again, various terms were used (extreme vs. moderate poor; ultra vs. moderate poor; very poor vs. poor; poorest vs. poor; core vs. non-core poor; indigent poor vs. moderate poor), so the data are not strictly comparable. But they show that the proportion of

clients from extreme poor households—roughly representing the bottom half of the poor—ranged from 2 percent in BancoSol to 49 percent in one *Caisses Villageoises D'Epargne et de Crédit Autogérées* (CVECA) branch in Mali. They comprised more that 25 percent of clients in only 4 of the 13 programs (WEDP and BRAC in Bangladesh, Mudzi Fund in Malawi, and CVECA in Mali). These findings generally support previous findings that those programs that explicitly target the poor tend to reach more of them (Mosley and Hulme 1998). Nonetheless, the extreme poor did not represent a majority of clients in any of the 13 programs covered in the studies.

The substantial participation of vulnerable non-poor clients in open access (non-targeted) programs can be expected. But in programs explicitly targeted to the poor, it raises the question of mis-targeting. Similar to Zaman's findings on BRAC, Matin's 1998 study of Grameen Bank clients in Madhupur district Bangladesh found more participation of non-target group households over time, increasing from almost nil in the late 1980s to 20 to 30 percent of client households in the late 1990s.[12] In explaining the growth in mis-targeting over time, he found little evidence of graduation from target group to non-target group. He concludes that mis-targeting is a consequence of larger average loan sizes, which creates incentives for participation by the non-target group. Matin argues that the implications of this trend are not negative. He describes the potential incentives for and benefits from mis-targeting for everyone: (1) for non-target group households, increased loan size at a relatively cheap rate; (2) for target group households, increased mutual help from wealthier group members, especially for loan repayments and possibilities for negotiating elite assistance; and (3) for the microfinance institution, more savings deposits and demand for larger loans resulting in improved self-financing ratios at the branch level.

[12] Matin (1998) reports mis-targeting in BRAC and Grameen Bank to be between 20 and 30 percent. Morduch (1998) finds 20-30 percent of Grameen borrowers over the mandated cutoff; Zaman (1999) finds 28 percent of BRAC households mis-targeted. Other data on mis-targeting includes Copestake's (1992 as cited in Zaman 1999) evaluation of India's Integrated Rural Development project that found participation of non-poor households ranged up to 36 percent and Hossain and Diaz's (1997) report of 29 percent of CARD clients who are over the housing value limit.

TABLE 4.

Proportion of Extreme Poor MFI Clients in 13 Programs (1993–1998)

Proportion of Extreme Poor Clients in Program	Country and Program
0-10%	BancoSol/Bolivia(2% indigent poor) FIE/Bolivia (2% indigent poor) Caja Los Andes/Bolivia (3% indigent poor) Mibanco/Peru (9% extreme poor) FFH/Thailand (10% poorest)
11-25%	PRODEM/Bolivia (15% indigent poor) Fundacion Sartawi/Bolivia (18% indigent poor) ASA/Bangladesh (19% very poor) PULSE/Zambia (19% extreme poor)
26-50%	WEDP/Bangladesh (26% extreme poor) BRAC/Bangladesh (27% extreme poor) Mudzi Fund/Malawi (33% core poor) CVECA/Mali (24-49% very poor)
> 50%	NONE

Source: Annex 1.

While a majority of MFIs wish to reach the poor with their services, many do not actually know the poverty level of their clients or the effectiveness of their targeting approaches. A recent Consultative Group to Assist the Poorest (CGAP) report on poverty targeting (Mathie 1998) includes self-analysis by 23 organizations of the effectiveness of their poverty targeting methods in reaching the bottom poor (defined in the study as the bottom 50 percent of the poor). The respondents fell into three basic groups: (1) those who were noncommittal about which poverty groups they reached (10 organizations); (2) those who perceived that all or most of their clients were from the bottom half of the poor (9 organizations); and (3) a few who estimated that fewer than half of their clients were from the bottom poorest (4 organizations). Very few of the organizations surveyed had data available to assess the poverty levels of their clients. Those organizations that did have relevant impact data tended to be in the third group. Information from this report suggests the value of studies for understanding what groups among the poor microfinance programs reach.

Available data provide only a sketchy picture of which groups among the poor microfinance programs reach because the number of studies is small relative to the number of existing microfinance programs. It is probably safe to say, however, that in most microfinance programs, a majority of microfinance clients are not among the extreme poor, but cluster mostly above and below the poverty line. At the same time, some extreme poor and some non-poor clients do participate. It is noteworthy that this mix of clients is observed across and within different types of programs (rather than some programs reaching one group and other programs

reaching another). The findings from the WDR field work and the literature generally concur that a majority of microfinance clients are in moderate poor and vulnerable non-poor households, and a minority are in extreme poor and non-poor households.

For those concerned with reducing the severity of poverty, these findings are likely to show lower-than-desired participation rates for the extreme poor (and higher participation rates for the vulnerable non-poor).[13] For MFIs working to expand outreach to poorer clients, the central issue is whether the poor self-exclude. Unfortunately, the data are still too limited to draw any conclusions or offer explanations. It is not entirely clear whether the extreme poor select themselves out of these programs, whether they are selected out by the groups, whether they are selected out by staff (who focus on their repayment capacity), or whether they drop out because products and services are not appropriate. While it is likely to be a combination of the above, more research is needed to clarify these issues.

Regarding other traits, it might be tempting to characterize the typical microfinance client as a middle-aged woman with a large number of dependents, struggling to make ends meet in one or more low-risk economic activities in a high-risk environment. But such a characterization would mask the heterogeneity of clients regarding their wide ranging demographic characteristics, their personality traits, their intra-household relations, the composition of their household economic portfolios, their positions within their communities, and the contexts in which they live and work. All of these factors may condition participation as well as impacts. The ultimate question is the extent to which MFIs are able to meet the different financial service needs of different groups of clients, whatever their characteristics.

D. Summary Points on Which Groups among the Poor Microfinance Programs Reach

- The study found a mix of extreme poor, moderate poor, and vulnerable non-poor clients in most microfinance programs, including those specifically targeted to the poor. The findings suggest that the majority of microfinance clients are from moderate poor households, followed by vulnerable non-poor households, and then by extreme poor households.
- Some consider a mix of poor and less poor borrowers to be desirable if the aim is sustainability. It is also considered desirable by those whose aim is to reduce the incidence of poverty by preventing vulnerable households that are just over the poverty line from falling into poverty. The unanswered question within the industry is the optimum balance of this mix. The assumption is that extending services to a broader spectrum of clients, both up and down, will increase the outreach and scale of programs and maintain movement toward sustainability.
- Not everyone, however, agrees with the idea of a mix. Among those committed to reducing the severity of poverty and reaching the poorest of the poor, some are concerned

[13] It also is possible that some of these measures may under-count the extreme poor.

with the increasing participation by non-poor clients in some programs. They argue that such participation diverts resources away from the poor and may result in program designs and products that do not necessarily meet the financial service needs of various groups among the poor. At what point the win-win situation described by Matin—that is, the across-the-board benefits of involving non-target groups in programs—may shift in favor of the non-poor at the expense of the poor is still an open question.

- The participation rate of extreme poor borrowers is higher in programs that specifically target the poor than in open access schemes. Because some of the open access schemes are very large in scale, however, the absolute number of extreme poor people participating in these programs, in some cases, is actually higher (Hulme and Mosley 1996).
- It is well established that credit services do not reach the destitute—the bottom 5-10 percent of the poor. Typically, group selection processes, program staff, and program design exclude people from destitute households from loan services. In addition, such poor people also self-exclude. Indeed, credit may not be an effective means of addressing problems associated with destitution.
- Different indicators and measures sometimes show different things regarding the poverty level of clients. In some programs, for example, income indicators show a higher proportion of non-poor clients than asset indicators.[14] PRA and wealth-ranking techniques generate a wider range of indicators—many related to vulnerability—and clients usually fall somewhere along a continuum of poverty rather than in or out of it. The findings tend to be more subjective and helpful for understanding clients' and households' economic goals. Such findings suggest the advantage of going beyond one-dimensional indicators. In combination, income, wealth, and self-defined measures can be powerful in helping to understand the extent of both poverty and vulnerability experienced by microfinance clients.
- The WDR field studies and the literature review show the value of wealth ranking and other PRA techniques in looking beyond income measures of poverty. The results of these exercises expose the nature and meaning of poverty and vulnerability from the perspective of clients themselves. As clients describe the differences among the extreme poor, the moderate poor, and the vulnerable non-poor, implicitly they reveal their individual and household goals and perceived pathways out of poverty. The findings suggest the importance of a combination of economic and social factors in increasing household economic security, reducing vulnerability, and expanding options, which confirms the importance of looking at not just income but beyond income in understanding the poverty impacts of microfinance services.

[14] For example, in Zaman's study of BRAC clients, income-based poverty measures show 66 percent of clients to be below the poverty line; BRAC's asset-based proxy measure, land, shows 72 percent of clients to be poor; that is, they have fewer than 50 decimals of land. In Bolivia, Mosley's client income data on BancoSol, PRODEM, and Fundacion Sartawi suggest fewer poor clients than the asset-based basic needs measure of Navajas et al. (Mosley 1999; Navajas et al. 1996).

Poverty levels notwithstanding, all microfinance clients have some income and some base of assets. Otherwise they would be destitute and outside the reach of most microfinance programs. An important question in understanding the nature of poverty of different groups is, "To what extent are they vulnerable to a loss of income, assets, or the means to generate income?" We now turn to the question of vulnerability by examining the nature of risks facing microfinance clients.

IV. What Is the Nature of Risk Facing Clients?

"Life is one long risk…." CARD Bank client from the Philippines.

For the poor, risk is ever present in their lives. Defined as the chance of a loss or a loss itself, *risk* has many sources—(1) *structural factors* such as seasonality, inflation, or the vagaries of weather; (2) unanticipated *crises and emergencies* such as sickness or death of a family member, loss of employment, fires, and theft; and (3) the high costs associated with *life cycle events* such as marriage, funerals, and educating children.[15] Likewise, risks are associated with (4) operating an enterprise and with (5) taking a loan.

Vulnerability may be defined as the ability of an individual or household to deal with risk. In considering the impacts of microfinance services, it is perhaps useful to consider risk in terms of shocks and economic stress events that require people to spend large 'chunks' of money (Rutherford 1999).[16] In this context, then, vulnerability may be considered in terms of the frequency of the shock or economic stress event and its associated costs. Further, vulnerability may be considered in terms of the resources and range of coping mechanisms available to an individual or household to protect against a shock or economic stress event ahead of time or to deal with it after it occurs. Gender and poverty factors are at work here, because both affect access to and control over resources and the strength of other coping mechanisms. The ability to cope with a shock also depends on whether it can be anticipated (thus allowing households opportunity to prepare for it ahead of time), whether it is 'one off' or repeated, whether more than one shock or stress occurs at the same time, and whether it is covariant or idiosyncratic.[17]

Depending on the resource endowment, as well as the resilience of an individual or household to deal with different shocks and economic stress events, such events may result in loss of income, assets, capabilities, or entitlements. The loss may be short lived, long term, or permanent. Income loss may result from interruption of an income stream, new or increased demands on an income stream, reduction of income, or reallocation of income away from production activities. The loss also may force a reallocation of income away from consumption. Shocks and economic stress events also may result in the loss or deterioration of a variety of assets: (1) financial assets, such as savings; (2) physical assets, such as housing, land, tools, equipment, or other productive assets; (3) human assets, such as household labor resources and health; and (4) social assets, such as relationships of trust in the community, participation in community groups, networks, and freedom from violence. Such events can erode coping mechanisms that individuals and households have built up over time.

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[15] These categories build on those defined by Rahman and Hossain (1995) in their work on poverty trends in Bangladesh.

[16] In this study, *shock* is defined as a sudden disturbance or the cause of such a disturbance. It can be a trigger leading to or adding to impoverishment of individuals and households. It is distinguished from a long-term trend such as population growth, long-term unemployment, and land dispossession, which also create downward pressures on the poor. Participants in this study, and in other poverty studies, tend to place more emphasis on shocks than on long-term trends (May et al. 1997).

[17] Covariant shocks or events affect all households at the same time, while idiosyncratic shocks or events affect only some.

This section discusses findings from the field studies and other literature on the nature of risks faced by microfinance clients. Sections V and VI discuss findings on strategies that clients use to protect against risks ahead of time (ex ante) or to cope with associated losses afterward (ex post), as well as the role of financial services in the process.

A. Sources and Nature of Risk Facing Microfinance Clients

The field research reveals frequent and wide-ranging sources of risk for microfinance clients. As described in the sections below, illness emerges as perhaps the most prominent source of risk, followed by the death of a family member and accidents. Enterprise risk was frequently mentioned in Bolivia and the Philippines, countries that have experienced large and rapid structural changes in their economies. The risk of taking a loan was mentioned, especially among first-time borrowers and older clients with larger loan sizes. (See Table 5, Risks Confronting Microfinance Clients.)

TABLE 5.

Risks Confronting Microfinance Clients

Sources of Risks	Bangladesh	Bolivia	Philippines	Uganda
Structural factors	Floods	Natural disasters Decline in levels of employment Increased competitiveness in market	Typhoons Pest infestation Factory layoffs Overseas contract work	Rising prices Increase in school fees Restructured education system Seasonal fluctuations Limited skill base of clients Currency depreciation Increased tax burden

Sources of Risks	Bangladesh	Bolivia	Philippines	Uganda
Crises and emergencies		Sickness and death of household income earner or close relative Accidents and robberies Exchange rate mistakes	Loss of life Chronic sickness and death of child or parent Forced migration Assumed responsibility for sheltering and feeding extended family Sexual harassment by employer Job loss of family members Marital problems Low level of sales Accidents, fires, and robberies Violence in the community School closing Poor relations with in-laws Harassment by neighbors Sibling on drugs	Theft or illegal appropriation of property Tax increases Sickness or death of a close friend or relative Loss of employment Lack of food Paying school fees for children of relatives Abandonment by spouse Accidents, robberies, and fires Domestic violence (women) Community violence (men) Men's withdrawal of income from the household
Life cycle events	(See note)	(See note)	Marriage of children Education expenses of family members	Education expenses for own children Sickness or death of a spouse or household income earner High dependency ratios in household
Operating an enterprise	Negative return on investment in loan-financed enterprise activity	Lack of accounting knowledge	Low or negative return on enterprise investment	Business loss Competition

Sources of Risks	Bangladesh	Bolivia	Philippines	Uganda
Taking a loan	Negative return on investment of loan	Fear of mutual support of solidarity group breaking down when client experiences a crisis and cannot repay loan	Loss of respect within group when repayment problems occur Outstanding debt reduces capacity to tap into risk-sharing networks Outstanding debt reduces borrowing	Keeping up with loan repayments

Note: These risks were not explored in detail as part of this research.

1. Structural Factors

Risks from structural factors tend to result in long-term or permanent changes that affect the wider economy (Wright et al. 1999). The importance of risks resulting from *structural factors* for microfinance clients emerges from the literature. Factors such as the vagaries of weather, floods, typhoons, drought, frost, crop pests and diseases, wars, inflation, and price fluctuations are repeated in studies of risks faced by poor households and communities (Dunn 1999; Barnes and Keogh 1999; Morduch 1998a; Townsend 1995; Lund and Fafchamps 1997). These types of shocks or economic stress events are particularly devastating when they result in the destruction of housing or business premises. They further affect microfinance clients when they cause the loss of a source of income, in large part through their impact on markets. For example, markets may be affected by unfavorable price changes for inputs, outputs, and transport; disruption in marketing channels and transport networks; disruption in credit channels; increased price of consumer goods; failure of equipment; and interruptions in power supply. Breakdown in civil order may also lead to unfavorable acts by officials, illegal confiscation of property by police or municipal authorities, and theft and robberies (Dunn, Kalaitzandonakes, and Valdivia 1996).

The importance of risks arising from structural factors also emerges from the field studies. Using participatory rapid appraisal (PRA) methods, the Uganda Women's Trust Fund (UWFT) clients identified two significant *structural risks* facing clients. The first relates to economic reform policies and their effects on the economy. In Uganda, such reforms have led to the loss of income through retrenchments as well as to new demands on household budgets, such as user fees for schools and health services. Devaluation has driven up prices and tax expenditures have increased (due in part to more efficient collection). A second structural risk relates to seasonality. Seasonal swings in demand and expenditure are compounded by the fact that low-demand periods for many microenterprise goods and services coincide with the timing of school fees and other education-related expenditures. In the Philippines, the effects of typhoons and of the Asian economic crisis on the economy were mentioned as significant structural risks. In Bolivia, large and rapid structural shifts in the economy have created an environment of uncertainty for microentrepreneurs and their households.

The Bangladesh field work focused on one major risk: the devastating 1998 floods. Described as the worst in living memory, the floods affected two-thirds of the country and severely disrupted the daily lives of a majority of the population. Two out of three annual crops were affected and one-half million homes were destroyed. More than 1,000 people died. At the individual and household levels, the floods affected Bangladesh Rural Advancement Committee (BRAC) clients in several ways. Houses were wrecked, employment was lost, food stocks were destroyed or depleted, roads and infrastructure were damaged, communications were disrupted, schools were closed down, crops were devastated, and health problems resulted.

Rapid response by the government, nongovernmental organizations (NGOs), and international donors was critical in limiting loss of life and restoring property by providing food, public works, and agricultural rehabilitation programs. The impact on communities served by BRAC was further mitigated by actions undertaken directly by BRAC and include post-flood disease control measures; the supply of seeds to farmers; the replenishment of inputs to BRAC members involved in sectoral programs (saplings, birds, and fish fingerlings); and other efforts to recapitalize devastated households. BRAC also mobilized to repair schools, build new sanitary latrines, and repair infrastructure and other public works. BRAC clients were part of a credit organization that turned into a *de facto* relief organization.

The field studies found that the importance of certain structural risks varied for different groups of clients. In the Philippines, structural risks such as typhoons, pest infestations, and forced migration—all of which affect physical assets—were considered to be very important among the extreme poor clients. In Bolivia, structural risks associated with weather and crop and livestock diseases ranked high for rural clients. These types of covariant risks associated with agriculture, however, were less important than might be expected, probably because, in their search for clients who can make monthly payments, most Bolivian MFIs target rural clients who have non-farm sources of income to complement the lumpy nature of crop and livestock income.

2. Crises and Emergencies

Crises and emergencies are sudden and unexpected shocks or economic stress events within households that disrupt their ability to generate income. They are particularly difficult to manage in the absence of savings or other forms of insurance (Wright et al. 1999). Across the field studies and literature review, illness emerges as perhaps the most prominent economic stress event for poor households. It affects all households and it happens often.[18] Illness affects households adversely because of the costs associated with medical care (especially if hospitalization is required) and the loss of a household's income when an earning member falls ill (Barnes and Keogh 1999; Chen and Snodgrass 1999; Dunn 1999; Gertler and Gruber 1997 as

[18] Perhaps the most systematic study of the nature of risk experienced by microfinance clients is Noponen and Kantor's study of SEWA members (Noponen and Kantor 1996). Using an event history matrix, they found that SEWA urban members regularly experience a large number of economic stress events. These events were ranked by their robustness—a measure of cost weighted by frequency. The findings show that illness is the most robust stress event and that it has an average cost almost three times as high as any other event.

cited in Morduch 1998c; Hussain 1997; Lund and Fafchamps 1997; Noponen and Kantor 1997; Noponen 1991; Townsend 1995; Wright et al. 1999).

Consistent with the WDR field findings, illness was the most frequent shock in three AIMS baseline microfinance impact surveys.[19] In India, the most frequent shocks were illness and marriage; in Zimbabwe, illness and death of a family member; and in Peru, illness and robberies (Barnes and Keogh 1999; Dunn 1999; Chen and Snodgrass 1999). Hussain (1997) similarly found illness and death to be among the most frequently cited shocks among BRAC members.

Health crises and sickness are related to many factors, including the quality of housing and infrastructure. Poor housing and inadequate infrastructure related to the provision of water, sanitation, and solid waste disposal are critical issues for the urban poor (Moser 1998). Urban households in poor communities are especially vulnerable to the loss of income resulting from health crises caused by a breakdown in the rights to make claims on others and non-market transfers that serve as social insurance against livelihood insecurity (Moser 1998).

Other types of crises and emergencies, such as fires and accidents, are surprisingly common, especially in urban areas. They can have a devastating effect when they result in the loss or destruction of assets, particularly productive assets. Thefts, robberies, and cheating also are frequent. In Bolivia, poorer households perceived crime and theft to be relatively more important compared to better-off households. Urban crime is an increasing threat in many places, reflecting the erosion of the 'moral economy' with its lack of checks and balances. In neighborhoods where many microenterprises operate, traditional networks for maintaining law and order have unraveled (Moser 1998). Another common crisis in urban areas, especially for street vendors and others with insecure tenure, is harassment, confiscation of property, and evictions. Social conflicts and violence, especially violence against women, emerge as common risks in many places.

Loss of employment, as distinct from lack of employment, was mentioned as an impact of economic reform and other factors in the field studies. For individuals and households affected by the loss of a working member's income, their situation constitutes a severe crisis. The Bolivia field study and Moser's urban poverty research discuss the importance of this type of crisis for poorer households, given the greater relative importance of labor income for the poor. Loss of a working member's income affects not only a household's level of consumption but also puts stress on working capital and a client's capacity to repay a microfinance loan (Mosley 1999; Moser 1998).

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[19] Under USAID's AIMS (Assessing the Impact of Microenterprise Services) Project, four longitudinal impact studies currently are under way. They include impacts assessments of Zambuko Trust in Zimbabwe, SEWA Bank in India, ACP in Peru, and three MFIs in Uganda.

3. Life Cycle Events

Risks from life cycle events such as marriage, childbirth, education, and establishing a household may also be linked to widowhood, old age, health care for chronic illness, the death of a family member, and establishing an inheritance for heirs. Although their timing cannot always be predicted, life cycle risks can be anticipated, which makes it more feasible to plan for them and manage them (Wright et al. 1999).

In the WDR field studies, the death of a family member emerges as one of the most stressful life cycle events for poor households. In areas affected by major health epidemics, such as HIV/AIDS, malaria, or tuberculosis, risks associated with chronic illness and death are especially frequent and stressful, and they affect increasingly younger age groups. Emotional distress associated with the death of a loved one is compounded by the economic impact of costs associated with preceding care and funerals, as well as the potential loss of one or more sources of household income. In countries where the age disparities between spouses are wide, widowhood can come early to women and impose long-term downward pressures on young families. In India, for example, SEWA Bank has responded to this risk by offering life insurance policies for the husbands of members. Rituals related to life cycle events such as marriages, deaths, and births are frequent and costly for poor households in many places (Noponen and Kantor 1997; Shipton 1990 as quoted in Barnes 1996).

A repeated finding across the field studies was the economic stress of educating children. In the face of this pressure, clients go to great lengths to keep their children in school, even when they are hit with other shocks and crises. To manage education expenses, some clients earmark income from one or more enterprises specifically for this purpose, especially enterprises in which the income flow is seasonal and corresponds to the timing of school fees. In Uganda, for example, some businesses generate peak incomes at Christmas and Easter, and this income is used to cover January and May school fees.

The Uganda field study, which focused on significant life cycle risks for microfinance clients, identified the order of importance for life cycle events as (1) prolonged illness of a family member, (2) costs associated with secondary and tertiary education, (3) the death of a spouse or parent, and (4) marriage. Prolonged illness or death of a close relative (especially through HIV/AIDS) often is compounded by having to take responsibility for orphans. High dependency ratios (ranging between four and six) in households of clients aged 26 to 45 were partly related to the effects of HIV/AIDS and the practice of siblings taking responsibility for the children of deceased family members. The vulnerability of many of these households was compounded by their dependence on a single source of household income. High dependency ratios of six in households of clients over 55 years reflect similar pressures, but the effect of these ratios is compounded by the lower productive capacity of older clients over time (Wright et al. 1999).

The Downward Pressures of High Dependency in Uganda

Jane's first encounter with an MFI was when she took a loan from the Foundation for International Community Assistance (FINCA) in 1997. After three FINCA loans she switched to UWFT and was into her second UWFT loan at the time of the interview. Jane's income sources include irregular earnings from a nursery school she founded and daily income from a beer brewing business. She has used her loans for both businesses. The downward pressure of high dependency, however, is a constant drain on any discretionary income she might accumulate and otherwise invest in an economic activity. Jane is married to a farmer but regards herself as the head of the household. She lives in Kampala and is responsible for three children under the age of 17, all of whom are in school. Two are her own children and one is the orphaned son of her brother. She also is responsible for supporting six additional orphans, also the children of her siblings, who live outside of Kampala. Jane noted that bringing them to live with her would be prohibitively expensive.

4. Operating an Enterprise

Many of the above sources of risks interfere directly with the ability of households and individuals to operate enterprises. Risks from structural factors that relate to seasonality—the vagaries of weather, natural disasters, and floods—are especially important for enterprises. Market-related risks, which include price fluctuations and increasing competition resulting from the implementation of structural adjustment programs, also are significant. These sources of risk create uncertainties in the prices and volumes of inputs and their patterns of supply. They also may lead to fluctuations in market demand and uncertainties in the prices and volumes of goods and services.

Other sources of enterprise risk relate to the management of the enterprise. They include lack of market knowledge, accounting, or other skills. In this context, risks also are associated with hiring labor or investing in technology when new processes fail to work, equipment breaks down, or power supplies are interrupted (Chua 1999; Hulme and Mosley 1996; Kilby and D'Zmura 1985; Lapar, Graham, and Meyer 1995; Mosley 1996b; Mosley 1999; Nelson 1984; Zaman 1999). All these factors may affect the income or revenue stream of an enterprise and/or its assets in terms of the working capital and fixed capital it needs to run (Chua et al. 1999). The various sources of enterprise risk and ever-present potential for loss underscore the considerable management challenges that face microentrepreneurs every day.

A repeated finding in this study is the considerable variability in risk across different types of enterprises operated by microfinance clients. Such variability is reflected in wide-ranging rates of return for different enterprises. In Bangladesh, for example, Zaman's study (1999) shows the variability of risk associated with investing in rural enterprises. Data on the seven most-common BRAC-financed enterprises were collected from 70 households (10 for each enterprise). A wide range of average profits exists between the various business activities. Raising poultry, cultivating potatoes, and making nets show the highest profits; owning a grocery shop is in an intermediate profit category; cultivating paddies (rice) and rearing goats yield low profits; and fattening bulls was a loss-making endeavor. (See Table 6, Monthly Profit Rates for Seven BRAC Loan Activities in Matlab [Taka].)

TABLE 6.

Monthly Profit Rates for Seven BRAC Loan Activities in Matlab (Taka)

Type of Activity	Monthly Accounting Profit	Monthly Economic Profit[a]
Grocery shop owning	1883	589
Net making	1808	1036
Poultry raising	1296	1224
Potato cultivation	1106	1074
Paddy cultivation	75	68
Goat rearing	22	22
Bull fattening	-104	-128

Source: Zaman et al. 1996.
[a] The opportunity cost of additional investment in the project is included when calculating the economic profit. The opportunity cost of time is calculated only for potato and paddy cultivation, net making, and grocery shop owning.

The Philippines field study focused on enterprise risk and found the following:

- The nature and magnitude of risk can vary by subsector and from enterprise to enterprise. For example, aquaculture and farming are affected by natural disasters or vagaries of weather, trading activities are affected by competition and the macroeconomic slowdown, and many activities are affected by lack of contract enforcement.
- Costs and revenues are affected by risks associated with a range of factors including differences in the terms of factor requirements, production relations, and barriers to entry and exit. They also are affected by risks related to product life cycles, demand characteristics, factor and end-product prices, marketing requirements, and profitability.
- Enterprise risk also varies according to levels of working capital and fixed asset investments. For examples, risks are highest for agriculture and fisheries because of their investment levels and uncertainty in prices and volumes that affect their income stream.
- CARD Bank clients often use their first loans to start new enterprises. By definition, startup activities are especially vulnerable to risks and uncertainties. As elaborated in the next section, the risk of new activities is balanced against the fact that most clients aim to reduce risks by diversifying into several low-risk, household-based enterprises rather than by investing in one relatively larger enterprise.
- Overall, structural risks associated with seasonality, the vagaries of weather, natural disasters, and price fluctuations are a major source of risk for most enterprises. The study found other sources of risk to include (1) non-collection when selling on credit, (2) low cash flow from enterprises at certain times, (3) the flexibility and speed (or lack thereof) with which an enterprise can respond to changing market signals, and (4) factors associated with the manner of sale, physical space requirements, weather, and natural disasters.

Risks Facing Selected Enterprises:
Examples from CARD Bank Clients in the Philippines

Capture fishery	Natural calamities Pollution in lake Theft/piracy Destructive fishing methods
Fish vending	Low fish catch raises prices High fish catch lowers prices
Aquaculture	Natural calamities—typhoons, floods Low water supply
Fish fingerling trading	Mortality caused by poor handling Buyer reneges on agreement to buy or on timing of payment
Backyard hog raising	Diseases Insufficient cash for food and vet
Chicharon (fried pork rind) making	Supply shortage Increasing competition
Ornamental plants	Pests Low demand because of economic downturn Credit risk for those selling on credit
Artificial flower making	Changes in buyer preferences, fads Competition

5. Taking a Loan

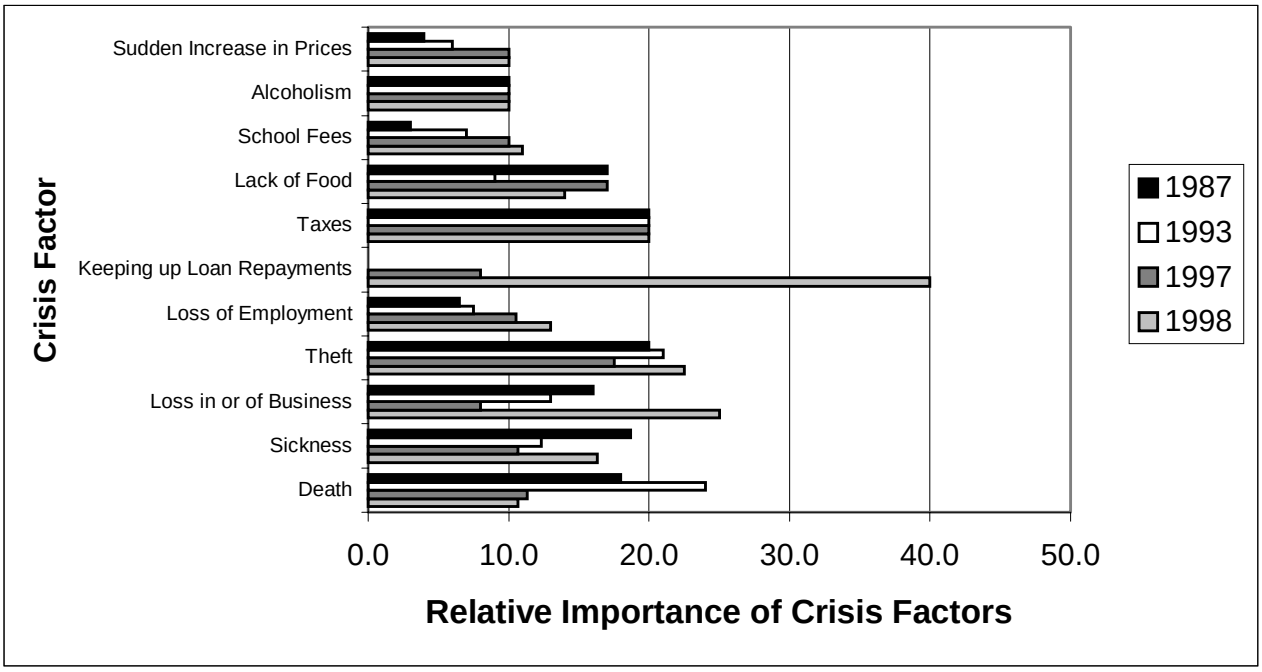
Although the focus of this study is on how clients use microfinance services to deal with risk and reduce their vulnerability, it is important to remember that taking a loan, by itself, is a source of risk. All loans require regular repayments. If the returns on investment on the loan are negative, or if the individual or household has experienced another kind of shock that has affected its income flow, it may be necessary to deplete assets or reduce consumption to make those loan repayments. If a client defaults on a loan, he or she may risk falling out of the financial market altogether and may lose access to this mechanism that may allow him or her to cope with other types of risks. Moreover, clients may deplete social capital by asking friends and relatives for money to repay loans. Being unable to repay on time or at all may strain or break relationships with other members of the credit group, may erode social standing, and may destroy good will. Defaulting on a loan also may cause loss of face, self-confidence, and self-esteem, all of which are important human assets (Hulme and Mosley 1996; Zeller et al. 1997). The negative consequences of loan default are well recognized. As the field studies have shown, maintaining access to a source of credit is an important coping mechanism and a key factor that drives clients to repay their loans.

Maintaining Access to Pro Mujer Credit in Bolivia

Maria has two businesses, snack foods sales and the production of hem decorations for *polleras*, the traditional skirt worn by Bolivian women. In 1996 she obtained her first Pro Mujer loan of Bs. 500. Eighteen months later, by the time of her fifth loan, which was Bs. 1,000, her businesses were generating a steady return with profits of about Bs. 200/month. She then suffered two major crises. Her son, who had helped her in her business, died and her husband, a wage earner, was paralyzed. This forced her to decapitalize her businesses. She drew down her inventory to pay for funeral and medical expenses. In addition, she withdrew funds from her Pro Mujer Community Association internal account to pay off her loan balance. Six months later, clear of debt, her association gave her a second chance to get back on her feet. A Bs. 500 loan, the same amount as her entry-level loan, was split among 60 percent for skirt hem decorations, 20 percent for the purchase of used clothes for resale, and the balance for her property taxes. Slowly, Maria is rebuilding her businesses.

The importance of the risk from taking a loan is illustrated in the findings from Uganda. (See Figure 2, Relative Importance of Crisis Factors for 21 UWFT Clients.) Keeping up with loan repayments was the most important crisis factor in 1998 for UWFT clients who participated in interviews. In part, this was because 1998 was a period of rapid expansion in the UWFT program, with many new clients and larger loan sizes.

FIGURE 2.



B. Gender and Vulnerabilities to Risk

Research from Bangladesh by Kabeer (1994) suggests that women experience different risks than men. The field findings from Uganda support this. Women tend to perceive more risks associated with domestic factors than men. They identified risks such as violence within the home, lack of cooperation with husbands, and abandonment by their husbands. Women who are abandoned by their husbands become more vulnerable because they lose status and protection in the community. The lucky ones have husbands who, upon death, leave them with assets. The less fortunate are expelled from the house with no assets. In fact, women household heads were found to be less likely to be accepted as group members because they lack other potential income earners and thus were perceived to be more likely to default on loan repayments. By comparison, men tended to be more concerned with political risks such as terrorist activities and harassment by government and city council officials.

The WDR study in Bangladesh also highlights women's vulnerability as a result of factors associated with their gender. These factors include women's limited role in household decision-making (including decisions regarding the use of their own income), limited access to and control over household resources (physical and financial assets), and women's low level of individual assets. Women are burdened with heavy domestic workloads and suffer from limited mobility, knowledge, and skills. Low self-confidence and self-esteem are related factors.

A number of microfinance impact studies highlight gender differences among microfinance clients that suggest women clients may be more vulnerable than men. At the household level, several studies refer to differences between men and women clients in the

ownership of land or housing, access to alternative sources of credit, labor allocation, expenditure patterns, and decision-making roles. Gender differences also are found in marital status (with more single, divorced, or widowed women than men) and education levels (lower for women). Many of these variables are associated with vulnerability. Woman-headed households are over-represented in many microenterprise programs, and these households often are characterized by their higher levels of poverty, high dependency ratios, and severe constraints on women's time (Vengroff and Creevey 1996; Buvinic, Berger, and Jaramillo 1989; Goetz and Sen Gupta 1996; Pitt and Khandker 1998; Sebstad and Walsh 1991).

Other studies show that women are concentrated in a narrower range of enterprise types than men, which suggests greater vulnerability because they have fewer opportunities to generate income. In Egypt, for example, a study of one credit program surveyed an equal number of men and women clients. Of the 96 different types of microenterprises that these clients were involved in, women clients were involved in only 28. A parallel study of a second program covered 43 types of enterprises, and women were involved in only 14 (Sebstad and Loza 1993). Evidence in some of the studies suggests that women's enterprises may be more likely than men's to have lower capitalization, different asset structures, and fewer employees. In some cases, this may represent a historically defined gender division of labor; in others it may reflect women's different enterprise goals, especially those related to risk (Lapar, Graham, and Meyer 1995; Sebstad and Walsh 1991).

C. Summary Points on the Nature of Risk Facing Clients

Clients face a host of different types of risk, but gender affects the ability to cope with them. Clients consider risks most closely linked to the household as the most important, and client perspectives on risk have implications for program outreach, impacts, and sustainability.

1. The Importance of Client Perspectives on Risk

Client perspectives, as revealed in the field studies and other literature reviewed, are important in understanding the nature of risk in terms of what is most prominent, most devastating, most frequent, and most expensive. These perspectives suggest that the most prominent shocks and economic stress events for the poor are related to illness and death. For all households perhaps the most devastating shocks are those associated with the permanent loss of a household income earner. Such a loss can occur through death, sickness, or abandonment. The constant stress of school fees is another common economic stress event cited across studies and settings. Such shocks and economic stresses affect household income flows, the ability of microfinance clients to repay loans, and the capacity for them to accumulate savings and other of assets, particularly productive assets.

All households face risk, not just the poor. Clients at different levels of poverty and vulnerability, however, often perceive and experience risks differently. What is perceived as a shock or economic stress event by someone from a poor and vulnerable household may not be perceived as such by someone from a rich and more secure household. A poor person perceives a

typhoon differently than a less vulnerable person because the typhoon may destroy the poor person's bamboo home, but leave intact the less vulnerable person's concrete home. Poorer households also have fewer resources to draw upon to cope with shocks or economic stress events, so these events can more easily become crises. The capacity of a household to bear risk has direct implications for decisions about taking risks and about the way the household members manage their household economic portfolios.

Clients' perspectives also reveal that shocks and economic stress events are not always perceived negatively. In some cases, they are considered in a positive sense to present an opportunity for critical life change.

Economic Stress Events Experienced by Poor Women Working in India

The most *frequent* events	Ritual celebrations (puberty rituals, ear boring ceremonies, pilgrimages)
The most *expensive* events	Marriage and payment of dowry for a daughter
The most *devastating* events	Death of the husband (resulting in loss of the husband's income and the woman's social status)
The most *prominent* event	Illness

(Noponen 1991).

2. Implications for the Design of Financial Services

While clients' perspectives confirm the considerable risk associated with taking a loan, this risk should not be overestimated. Taking a loan is a risk that people are willing to bear. Clients need and value credit from microfinance programs, and they go to great lengths to ensure their continued access to microfinance credit. They clearly understand that defaulting and exiting the capital market means they are cut off from this important source of money when they need it.

Recent research from East Africa finds that microfinance clients drop out of programs for a variety of reasons, not just because they cannot bear the risk of a loan. For example, they may not have a useful purpose for a loan, they may wish to 'rest' between loans, or they may have achieved their investment objectives. Nevertheless, some clients do leave programs because they pose excessive risks to the client. In some cases, their leaving may relate to the types of risks described above. In other cases their departure may relate to the inappropriate design of financial products, services, and/or delivery mechanisms. For example, poorer clients may drop out if the average loan size in their groups rises to high levels and they have to guarantee the larger loans of other group members. Other clients may drop out because of cumbersome savings requirements or group selection processes.

What is clear from experiences to date is that there is room for a broader range of financial services to help clients not only reduce the risk of borrowing, but also to help them deal with other risks they face in their lives. Increasingly, calls from within the microfinance community encourage moving beyond the rigid credit-driven, group-based products that dominate many programs toward the development of a wider variety of credit, savings, and insurance products and services that respond more effectively to the financial needs of clients (Hulme 1999).

The following sections discuss strategies that clients use to reduce risk and vulnerability; the current role of microfinance credit and savings; and implications for new products, services, programs, and policies.

V. Strategies Microfinance Clients Use To Reduce Vulnerability

Vulnerability is challenging to measure because it reflects a potential circumstance rather than a concrete state. In this study, we examine vulnerability by looking at the actual behavior of individuals and households in terms of strategies they use to protect against the threat of a shock or economic stress event ahead of time, and strategies they use to cope with a loss afterward.

People can do a number of things ahead of time to reduce their vulnerability to shocks and economic stress events. Precautionary strategies include (1) diversifying sources of income and livelihood activities and (2) consolidating and building up assets by saving; stocking food; investing in land, housing, and health care; and strengthening coping mechanisms such as reciprocal social networks. These strategies reduce vulnerability by increasing the options and resources available to a household to fall back on in the event of a shock or economic stress event (Dunn, Kalaitzandonakes, and Valdivia 1996).

After a shock or economic stress hits, strategies for managing the loss are not all equal in terms of their consequences. People and households with few options may be forced to use a negative coping strategy, which permanently reduces their resource base and increases their longer-term vulnerability. A negative coping strategy might include, for example, selling key productive assets, which reduces the household's ability to generate income. By contrast, individuals and households with more options have the choice of more positive coping strategies such as reducing consumption, mobilizing their labor, finding a new source of income, using up cash savings, or seeking gifts or loans from relatives and friends. These strategies do not threaten the longer-term survival or security of their households. The mix and sequencing of response strategies will depend on the poverty level of the household, especially the earner/dependent ratio, and gender roles and relationships as they relate to coping mechanisms (Chen and Dunn 1996).

Both *ex ante* strategies (precautionary) and *ex post* strategies (managing a loss) for dealing with risk involve a mix of intra-household measures (self insurance) and inter-household, group-based measures (informal and formal insurance) (Townsend 1995; Morduch 1998a). The types and mix of *ex ante* and *ex post* strategies an individual or household uses at a given time will reflect its level of vulnerability. Positive changes in the types and mix of strategies over time suggest reduced vulnerability.

Findings from a number of studies show that household incomes fluctuate widely as a result of shocks, economic stress events, and other downward pressures, but consumption remains relatively smooth (Morduch 1998a). The fact that changes in consumption do not necessarily correspond to income fluctuations raises the issue of what strategies people in households use to smooth consumption and what role financial services play in this process.

This section synthesizes findings from the field studies and literature on strategies that microfinance clients use ahead of time to protect against shocks and economic stress events, as well as strategies they use afterward to deal with them. It examines the role that assets play in protecting against and coping with shocks and economic stress events. It highlights how the strategies are influenced by factors related to poverty and gender. Chapter VI then discusses the role of financial services in reducing vulnerability.

Findings on Asset Management in Bolivia

The following four routes are ways through which clients might improve their management of assets—defined as improving their rate of return on their asset portfolio or reducing its risk, or both:

1. Improve knowledge of the environment to convert uncertainty into a known level of risk. The adoption of written accounts assists in this process.
2. Improve social capacity to manage risk by developing social relationships that make it possible to cope with a crisis.
3. Reduce risk by diversifying the asset portfolio or adopting explicit insurance mechanisms.
4. Improve the rate of return by adopting an asset that yields resources that can be reinvested or kept as a liquid asset.

The first two routes are applicable at all levels. Emphasis shifts from the third level to the fourth as incomes increase and risk aversion declines.

A. Ex Ante: Strategies to Protect against Shocks and Economic Stress Events Ahead of Time

Findings from the field studies and literature review on strategies that individuals and households use ahead of time to protect against risks focus largely on (1) income smoothing (diversifying income sources and stabilizing and increasing income flow) and (2) asset building (a solid and mixed base of financial, physical, human, and social assets). While asset diversification often is considered in relation to a household's mix of physical and financial assets, client perspectives reveal the importance of human and social assets in this mix, especially for households below the poverty line. The findings confirm the importance of multiple income sources and a mix of savings, investments in housing, investments in children's education, continued use of multiple sources of informal credit, good money management, and the maintenance of strong, reciprocal social relationships in protecting against risk. (See Table 7, Client Strategies for Protecting against Risk [Ex Ante].)

TABLE 7.

Client Strategies for Protecting against Risk (Ex Ante)

Strategies	Bangladesh	Bolivia	Philippines	Uganda
Stabilize and increase income flows	Mobilize labor Shift from on-farm to off-farm labor Take a loan Refinance debt	Diversify income sources	Diversify income sources, including regular- and low-risk economic activities	Diversify income sources, including more enterprises, rental income, and salaried income Develop mix of income sources based on timing of income flows
Build asset base (insurance mechanisms)				
Short term	Improve housing conditions	Invest in irrigation and tube wells, etc., to ensure access to water	Acquire consumer durables	Establish savings accounts Purchase utensils (women only)
Medium term	Invest in productive capital	Raise livestock	Raise swine as time deposits	Acquire new assets Invest in villages of origin
Long term		Invest in housing	Raise more expensive livestock (cows and horses) Invest in home improvements	Build rental units Raise more expensive livestock
Strengthen coping mechanisms				
Intra-household mechanisms			Mobilize family labor (for overseas employment, wage employment, and self employment) Prayer and faith	
Inter-household mechanisms		Participate in ROSCAs Participate in village banks	Make friends with rich in community	Join self help groups Join solidarity groups
Other precautionary strategies to reduce risk	Vaccinate animals Use pesticides	Purchase food in bulk	Institute family budgeting	Maintain access to multiple sources of credit Diversify sources of credit

Source: WDR field studies.

1. Income Smoothing

A steady flow of income, or one that corresponds to the cash flow demands of the household, can preclude the use of less-positive mechanisms to smooth consumption. Toward this end, diversifying sources of household income is a common and important strategy used by both households below the poverty line and vulnerable non-poor households to protect against

shocks and economic stress events. Surplus income can be put aside or stored up in various forms to be drawn upon in times of need.

Developing a portfolio of investments and activities with returns that are not perfectly correlated is the principal idea underlying diversification. The objective is to construct a household economic portfolio that may have lower overall income variability, even though the individual activities in the portfolio may have different levels of variability (Dunn, Kalaitzandonakes, and Valdivia 1996). Ensuring a stable and sufficient flow of income is critical for reducing risk because it provides future resources to borrow against when a chunk of money is needed for shocks or economic stress events. A steady source of income also provides the means for building assets.

The WDR field findings in the Philippines revealed diversification strategies such as mixing lower-risk and higher-risk activities within the household. In Uganda, clients combined salaried income, rental income, and enterprise income. Clients also diversify within businesses, as exemplified by one UWFT client who raises poultry. She started out by raising broilers that can be sold off every two months, and then diversified into layers that can be sold every six months. In Bolivia, clients are highly diversified, and poorer clients minimize their exposure to risk by diversifying into low-risk activities. Among BRAC clients in rural Bangladesh, households shift labor from on-farm to off-farm activities to smooth income during the low season. A common strategy is for households to have one or more activities that generate a small but daily flow of income (such as retailing charcoal, cooked food, or vegetables) to meet daily needs, as well as larger-scale activities that generate larger lump sums of money when it is needed (such as a large batch of chickens that is sold off all at once at Christmas time or when school fees are due).

Similarly, the AIMS baseline studies in Zimbabwe, Uganda, India, and Peru found client households to be highly diversified. In Zimbabwe, for example, Zambuko Trust clients had an average of 2.4 income sources. In addition to income from one or more enterprises, more than one-quarter of clients' households also had a steady flow of wage income, and almost one-half of clients' households had steady income from renting rooms or shacks (Barnes and Keogh 1999). In Uganda, a sample of clients' households in three microfinance programs had an average of 3.23 sources of household income. One-third of these households had a mix of wage and enterprise income, especially among urban households in Kampala. In Peru, ACP clients' households had an average of 3.3 sources of income. Most households (86 percent) had two or more income sources, and one-third reported four or more sources. Sources included enterprise revenue, full-time wages or salaried employment, part-time or casual wage income, rental income, remittance income, shareholder profits, and retirement pensions (Dunn 1999). In India, SEWA borrowers' households had an average of 2.7 sources, and more than one-half of the households had three or more sources. The importance of wage income again emerges—with wage income being the primary income source for one-half of the households (Chen and Snodgrass 1999). The AIMS practitioner-led assessment in Mali found that two-thirds of the mature Kafo Jiginiew clients diversify to protect against risks and earn income from at least two enterprises (MkNelly et al. 1998).

A poverty study in South Africa found that almost everyone has two or more sources of income, and that it is common to find linkages among different income sources. For example, the production and sale of certain crafts are linked to the days on which other people receive pension payments or wages (May et al. 1998). Other strategies described in the literature include diversifying crops, diversifying the location of plots, and growing safer crops over riskier ones (Morduch 1998a; Townsend 1995).

In terms of gender differences, a study in rural areas of Gambia found diversification to be a more common strategy for women than for men. This finding resulted in part from women's labor input into agriculture, which is more constrained because of other domestic demands on their labor. The study also found diversification to be related to women's goal to guarantee an alternative means of subsistence in case of a bad harvest, and their wish to increase their autonomy within their compound (C.I.D.R. 1991).

Regarding differences by poverty level, households with fewer physical and financial assets are more likely to diversify into activities that have lower levels of risk. They may place more emphasis on selling labor, tied labor, shared tenancy, or low-risk enterprise activities. These strategies result in lower returns but involve less chance of a loss (Dunn, Kalaitzandonakes, and Valdivia 1996; Townsend 1995).

2. Building Financial Assets

Financial assets for households, individuals, and enterprises include cash, cash savings, financial instruments, and funds extended in loans. For enterprises they also include current assets such as raw materials, finished products, and stocks of merchandise (Barnes 1996). An important protectional strategy for individuals and households is to build a diverse mix of financial assets, including those that are more liquid and can be turned into cash easily in case of emergencies and those that are less liquid and therefore less easy to squander. Types of strategies for building assets include saving cash, making informal loans, managing money well, and maintaining access to multiple sources of credit.

a. Saving Cash

Cash savings provide a critical buffer against shocks and economic stress events. Accumulation of savings to deal with unexpected events is a priority for most poor households, which save in a variety of ways. The WDR findings show that clients save by keeping cash aside at home; by depositing money in banks and other formal financial institutions; and by being active in rotating savings and credit associations (ROSCAs), accumulating savings and credit associations (ASCAs), and other informal group savings mechanisms.[20] MFI programs played a relatively small role because of a lack of voluntary savings services.

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[20] Rutherford's 1999 study of financial services for the poor stresses the importance of systems that suit the capacity of people to save and their needs for lump sums. He shows the importance of frequent and regular deposits, the time period over which the swap between deposits and lump sum is made, and the trade-off between systems that offer just one kind of swap like a ROSCA and multiple kinds of swaps like an ASCA. In ROSCAs, cash rotates evenly

In terms of gender, a study in Bangladesh found cash savings to be largely a female activity. The source of savings was typically associated with traditionally female occupations such as poultry raising or other home-based production, and the use of savings within female domains of activity, including asset building. Looking at patterns of last withdrawals, the study found the savings were used for children's schooling costs, housing improvement, health care, land acquisition, business expansion, social obligations such as marriage, gold/jewelry acquisition, and household consumption. Only 7 percent used the withdrawal to make a loan repayment (Wright, Hossain, and Rutherford 1997).

The WDR field studies found that while clients placed great importance on cash savings, many clients were reluctant to part with them when faced with a shock or economic stress event. They expressed a preference for borrowing over using savings when faced with an unexpected need for a lump sum of cash. In a number of cases, clients said they actually had earmarked their savings for a particular investment purpose and considered them 'untouchable' except in dire circumstances. One client in Uganda, for example, had a savings account earmarked for a building project and she considered it completely untouchable. In some cases, clients patch savings together with a loan to make a larger investment. Another Uganda client combined savings, supplier credit, and a loan to purchase a popcorn machine. Several other studies also confirmed the importance of savings for longer-term productive investments and for taking advantage of opportunities when they present themselves (Rutherford 1999; Nelson 1996). A study of informal borrowing in the rural Philippines found that when faced with an emergency need for cash, people prefer to use loans and gifts from friends, to reduce consumption, or to mobilize labor, even when they have liquid savings on hand (Lund and Fafchamps 1997).

The preferred use of cash savings for investments rather than for emergencies raises some question about the widely held idea that precautionary savings are a key constraint to breaking out of the poverty trap. While this preference may reflect the relatively better-off position of these clients, it suggests the importance of cash savings not only for dealing with emergencies, but also as a step toward accumulating other types of assets, including productive assets. Savings that appear 'precautionary' in many cases may actually be the beginning of savings for productive investment.

While all levels of poor save and value cash savings services, the savings are not risk free. A recent study of savings services in East Africa highlights the insecurity of the savings systems in both the formal and informal sector. In Uganda, two formal banks that sought to attract poor people's deposits failed in the past year. The same study found informal savings alternatives to be cost-ineffective, often insecure, and unreliable. These alternatives include deposit collectors who often charge a 3 percent monthly service fee; livestock that must be fed, housed, and protected from illness; hidden stores of money held in the home that must be secreted from thieves and marauding family members; ROSCAs, which provide an efficient but

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among all group members. They are symmetrical and time bound. In ASCAs some members borrow and others do not. The cash does not rotate evenly among members but in a variety of ways that are not necessarily time bound. Because they are not time bound, they can be more responsive in insuring against emergencies.

inflexible, limited, and short-term savings mechanism; and ASCAs, which are complex to run and often are lost to defaulting members (Mutesasira 1999).

b. Making Informal Loans

Informal loans made to friends, neighbors, and business customers represent a form of savings and sometimes earn interest, in cash or in kind. Informal loans are classified as current assets for enterprises or financial assets for the household or individual. In many contexts such loans are not recoverable in a timely manner and, hence, are not very liquid (Barnes 1996). As shown in the WDR field studies and other literature, exchange of informal loans both on the borrowing and on the lending side is extremely common across countries and contexts (Lund and Fafchamps 1997).; Noponen and Kantor 1997; Montgomery 1996; Rutherford 1999). Research in the rural Philippines shows that informal lending is frequent and highly reciprocal, and it usually takes place across relatively horizontal socioeconomic groupings (Lund and Fafchamps 1997).

c. Managing Money Well

Good money management is critical for preserving and building financial assets. This includes keeping a little money aside when it comes in, reducing what goes out, and finding a safe place to store what is left over (Rutherford 1999). Numerous examples from the WDR field studies of money management strategies show that: clients save regularly through formal and informal mechanisms; they put money into less liquid savings instruments that are hard to get at; they earmark savings accounts for particular purposes (health expenses; dowry; buying land; building rental housing); and they earmark income sources for particular expenditures (for example, charcoal earnings for food and earnings from food selling for the electricity bill). Protectional strategies include (1) keeping written accounts, which improves knowledge of the environment; (2) purchasing bulk food, stocks, and raw materials, which helps reduce what goes out; and (3) practicing family budgeting.

d. Maintaining Access to Multiple Sources of Credit

Maintaining access to multiple sources of credit is a key money management strategy to protect against risk. Maintaining access to credit with an MFI and other formal and informal sources offers people access to a discretionary chunk of money when they need it to deal with emergencies or to take advantage of opportunities when they arise. Clients maintain access to credit by participating in ROSCAs; by borrowing from moneylenders, pawnbrokers, local traders, and merchants; and by using a wide range of formal and informal community-based financial instruments, including MFIs (Rutherford 1999). The WDR field studies found clients to be very active in a range of these types of informal borrowing systems within their communities. Among the clients interviewed, participation in microfinance programs did not seem to reduce their participation in other informal borrowing systems. Rather they were integrated into a person's web of financial services. In this sense, accessing microfinance services, by itself, is a form of diversification.

Women, especially poorer women who head households, often have fewer options than men for borrowing within their communities. Because of their more limited options, their

continued participation in an MFI program is particularly important and may help explain why women have such good repayment track records across programs.

3. Building Physical Assets

Accumulating physical assets is a goal of clients and households everywhere. Physical assets vary in terms of properties and qualities, and they may increase, decrease, or stay constant in value. Nevertheless, they can play an important protectional role because they represent a store of value that can be drawn upon in times of need. Productive physical assets also are protective because they provide a means for generating a flow of income.

Individuals and households often hold physical assets such as livestock, grain stocks, food stores, gold jewelry, and consumer durables with the express intent of savings (Townsend 1995; Shipton 1990 as cited in Barnes 1996). These assets vary in terms of the level of their liquidity, a form of diversification. The WDR Philippines study found one client who raises pigs and hogs, which are a counterpart of time deposits in the formal banking system. Like time deposits they are untouchable until their date of maturity. When they mature, they can be used for something that requires a large initial outlay of cash, such as school fees. The Uganda study found that women purchase consumer durables, such as utensils, as a form of savings, while men prefer to purchase livestock. Precautionary strategies such as vaccinating animals and using pesticides on crops help prevent loss of these important assets. For many, an important value of these assets lies in the protection provided in situations of high inflation and when returns on formal savings are low.

Housing is one of the most important physical assets. Acquiring, retaining, and maintaining this asset is a high priority for most households. The loss of this asset from floods and other natural disasters, fires, or violence represents an immense loss in the absence of any form of insurance. The WDR field studies found that housing improvements are considered an important precaution for reducing unexpected expenditures related to house repairs. Such improvements also may include efforts to protect against floods or violent winds and weather (reinforced or raised structures), fires (corrugated roofs to replace thatch), or robbery and violence (metal bars at windows and doors). Housing also can generate rental income, serve as a place of business, and, over time, appreciate in value. In Uganda, housing ownership is particularly important for women in protecting against the risk of abandonment or death of their husbands. Many UWFT clients noted their desire to invest in a house in their own name so that they would have property to claim in the event of abandonment by or death of their husbands. Several clients in Uganda built houses in the city as rental units or in their village of origin, either to house relatives, to provide a place for their children to settle, or to house someone who tends a farm on their behalf.

My Home Is My Castle…and Workplace and Rental Unit

Multiple uses of housing are especially prevalent among households experiencing crisis. In many cases in Uganda, clients had subdivided their houses into rental units to generate additional income; in other situations houses were put to different uses at different times of the day. A striking example of the latter was a house that was used as a hair salon during the day, as a bar in the evening, and as a place to sleep at night.

In other instances business premises were used as residences at night as a strategy to cope with a crisis. One of the clients had the following experience: Enforcement authorities locked his room when he was away at work, saying it was an illegal structure. At night, until he finds a new room that he can afford for his family of fifteen people, some of them stay in the bar that his wife runs and the others stay in the kiosk that he runs.

Other physical assets that compose important parts of a diversified household portfolio include land with key infrastructure, permanent crops, or trees and common property resources such as water, grazing land, trees, and thatch grass. Registration of real property represents increased security of the asset (May et al. 1998; Barnes 1996).

Fixed assets in an enterprise are an important category of physical assets for microfinance clients. Such assets include property that is used in production, such as machinery, equipment, and tools; it also includes enterprise premises, such as buildings and land. Utilities such as water, telephone, and electricity, as well as access to transportation, also may be considered assets. Business registration certificates further represent important investments of time and money that add to the security of an enterprise (Barnes 1996). Vendor licenses provide market traders and street vendors legitimacy and the right to carry out their trades. For microentrepreneurs everywhere, accumulating and retaining enterprise assets is important for maintaining a source of income to help protect against risk. The WDR study in Bolivia found that an important goal and protectional strategy used by clients is to increase the rate of return on their productive assets.

4. Building Human Assets

Building human assets is a prominent strategy that individuals and households use to protect against risk. One such asset is the investment in preventative health measures, which protect against illness, perhaps the most prominent economic stress event for microfinance clients. The payoffs for such investments are both immediate and long term. Investments in good housing, sanitation infrastructure, and education are important complements for reducing the risk of ill health, and investments in health measures also help raise labor productivity.

Investments in education typically represent a longer-term protectional strategy but one that is given extremely high priority everywhere. The field research repeatedly found children's education to be a priority goal for many clients, who will go to great lengths to keep their children in school. CARD Bank clients associated education as a pathway out of poverty. The process by which investments in children's education reduce the future vulnerability of

households, however, is not always immediately apparent. In most cases such investments paid off for the parents' generation in terms of expanding opportunities, and it is assumed it will pay off for the children's generation as well.

Labor as a human asset is an important component of many of the protectional strategies mentioned above, such as diversifying income sources or putting to work productive assets of all kinds. The use of labor-saving technology and other strategies for increasing labor productivity and freeing up labor time (such as sharing child care) is particularly important for women. The time required for domestic work limits the amount of time women have for paid work, which constrains their ability to build a strong and diversified base of assets to cope more effectively with risks (May et al. 1998; C.I.D.R. 1991).

5. Building Social Assets

Social assets—networks, membership of groups, relationships of trust, access to wider institutions of society, and freedom from violence—are an important component of a household's asset base because they provide various mechanisms for sharing risks among households in a particular community. Sharing risks with other households allows more vulnerable households the possibility of pursuing higher return but more risky activities (Barnes 1996).

Social assets serve as a form of collateral for borrowing in times of need. They take the place of traditional physical or financial collateral and are especially important for poor borrowers and for relatively small loans. As the financial needs of borrowers increase, reliance on intermediate social networks tends to decrease (van Bastelaer 1999). The importance of social assets as collateral was exemplified in the Uganda field study. Members of one credit group said they discouraged the participation of women who were 'without protection'; that is, because these women were isolated and had no support in the community, the credit group members thought they would have no one to back them up if they got into trouble with loan repayments.

Social networks of kin and community members provide not only financial assistance in times of need, they also play a protectional role by offering the possibility of shared accommodation, shared child minding, sharing of experiences and advice, and exchange of labor (May et al. 1998; C.I.D.R. 1991). Such networks offer important channels of information and communication that are critical in anticipating and/or dealing with risks.

Narayan and Pritchett (1996) highlight the potential role of social assets in (1) promoting greater associational life within a community, (2) contributing to more effective government services, and (3) in creating better channels for diffusing information. The degree of trust within groups and toward government authorities can contribute to improved government services. Social assets also can lead to a greater range of market transactions in outputs, credit, land, and labor (and, hence, can lead to higher incomes). All of these forms of social assets contribute to a stronger asset base to protect against shocks and economic stress events.

Several factors influence the effectiveness of social assets in sharing risks: (1) the density and nature of the network of contacts among individuals in a given community; (2) whether

groups are characterized by horizontal or vertical internal relationships; (3) whether groups are inclusive or exclusive; and (4) whether income heterogeneity exists within the group (Narayan and Pritchett 1996). A study of risk sharing in the Philippines found the exchange of informal gifts and loans to be very frequent and highly reciprocal and that repeated interactions helped build trust. The exchanges operated primarily through small, horizontal groups composed largely of relatives. Households with more accumulated debt were less likely to participate in the exchange of loans. Households with liquid assets (such as cash savings), however, participated equally on the receiving end of these exchanges, which further indicates the reluctance of households to part with their savings when borrowing is an option.

Clients interviewed in the WDR field studies described the following protectional strategies based on social assets: (1) making friends with rich people in the community; (2) joining an MFI group and other groups; (3) doing favors with the expectation of reciprocity; and (4) participating in group insurance mechanisms, such as *Munno Mukabi* in Uganda or self-help funds in the Philippines. In Bolivia, clients described developing social relationships that could be drawn upon in times of need. Clients invest a great deal of effort on an ongoing basis to build and maintain reciprocal social networks among friends, neighbors, and relatives that can be called upon in times of need (and vice versa). Among all types of clients—men/women, urban/rural, and old/young—much time goes into building good relations and fulfilling obligations associated with maintaining these networks.

Munno Mukabi—Indigenous Insurance in Uganda

In Uganda, the most popular type of self-help group is known as *Munno Mukabi*, which translates to "Friend In Need Associations." Many clients of the UWFT belong to one of these groups. How does a typical *Munno Mukabi* operate? At the inception, members make an initial capital investment, agree upon a budget, and split the investment equally. After they make their initial investment, members attend weekly or monthly meetings at which they give to a collection. One group for example, collects Ush. 200 per head per sitting; others collect up to Ush. 5,000. The group keeps the money and lends it out whenever a crisis strikes. Members also pledge to make their labor available whenever a member faces a crisis or holds a celebration. The group uses the proceeds from the loans to purchase assets (such as large saucepans, dishes, lanterns, and canvas) that are required for household social functions (such as burials, weddings, children's graduations, and baptismal parties) that draw large numbers of people.

Several other strategies for building social assets are described in the literature. Shipton (as cited in Barnes 1996) describes how individuals and households in Kenya maintain their reputation and standing in a community by fulfilling obligations such as paying tithes, making tributes, and attending ceremonies. Townsend (1995) describes how some households extend their social networks to protect against covariant risks by deliberately marrying their daughters out over space (that is, in geographically dispersed villages). In this way, they have a wider and more diversified network of relatives to draw upon. Fafchamps (1992 [sic] as cited in Morduch 1998c) refers to labor assistance in production and interest-free lending of surplus land to poor households.

For women, both as individuals and as household heads, social assets are important in protecting against risk and for getting money when they need it, because women typically have limited access to other assets or coping mechanisms. Moreover, when women are more isolated or have fewer social connections because of culture or time constraints, they have fewer opportunities to build social assets. This lack of opportunity is especially true for widows and other single women.

Social assets are an important element of women's empowerment, but other intertwined factors also are significant in mitigating risk. Women's sense of self-esteem, self-worth, and economic contributions to the household provides a base for protecting against risk by building assets and increasing women's control over them. Improved gender relations within households and freedom from domestic violence provide a base for promoting women's self-esteem and self-worth, for increasing women's decision-making role within households, and for establishing more positive and reciprocal relationships outside the household. Increasing women's contributions to household income is an important route to these aspects of empowerment. Women's ability to earn income further plays an important role in accessing informal sources of credit (Noponen 1991). All these important factors contribute to reducing the vulnerability of households to shocks and economic stress events (Dunn 1999).

While social assets play an important role in protecting against risks across households, they have a number of limitations, including the following:

1. Social assets tend to be weaker in urban areas (Moser 1998). In Zambia, for example, one impact study found a high degree of suspicion, lack of trust, and weak social networks in urban Lusaka. This lack of social cohesion posed a great challenge for organizing credit groups but made the credit groups all the more valuable in expanding business contacts and building confidence among participants once the credit groups were formed (Copestake et al. 1998). One Philippines study shows that social networks are conditional in protecting against risks—their effectiveness depends on the type of shock, the poverty level of the household, and the household's pre-existing level of debt. Social networks can be drawn on for acute sickness among younger adults, for funerals, and for temporary loss of employment; however, they rarely are drawn upon in response to crop shocks or long-term unemployment (Lund and Fafchamps 1997).

2. For some households, social assets tend to be limited by geography. Townsend (1995) found that geographic isolation of households affects household members' ability to cope with shocks through village insurance systems.

3. Social assets often present a downside by implying heavy obligations. In the Philippines WDR study, clients mentioned a protectional strategy of divesting themselves of social assets by distancing themselves from the extended family.

B. Ex Post: Strategies to Cope with Shocks and Economic Stress Events after They Occur

After a shock or economic stress event hits, individuals and households use a wide range of strategies for coping with the loss. The loss management strategy selected will be based on the type of shock, the cost of the shock, and the resources and options available to a particular individual or household. In some cases people draw on resources internal to the household (self-insurance), and in some cases they draw on resources from outside the household (informal or formal group-based measures) (Morduch 1998c). Some strategies are more negative than others and can reduce the household's longer-term income prospects. (See Table 8, Montgomery's Classification of Coping Strategies by Their Level of Stress.)

TABLE 8.

Montgomery's Classification of Coping Strategies by Their Level of Stress

Coping Strategy	Notes
Low-stress coping strategies	
Expenditure saving activities (gathering fuel, fodder, culinary condiments from common lands) Changes in diet (cheaper foods) and reduced consumption (eating less) Periodic migration by one or more household members to look for higher wage income Calling in small informal debts from kin and neighbors	Primarily effective for dealing with minor shortfalls in income; are relatively low value and reversible; insufficient for meeting major crises and contingencies
Medium-stress coping strategies	
Using up cash savings Pledging future labor in return for advanced wages or loans Taking cash or kind loans from kin and neighbors Taking cash or kind loans from moneylenders and shopkeepers	Likely to help counter sudden crises and contingencies, but are less reversible, & reduce future coping capacity. They may therefore act as " ratchets" forcing a household further into poverty (especially if an initial crisis is compounded by subsequent shocks)
High-stress coping strategies	
Mortgaging or pawning assets (utensils, jewelry, land, etc.) Sale of nonproductive assets (initially small ones, such as household utensils; or larger ones such housing materials, tin roofing sheets etc) Sale of working capital at knock-down prices (e.g. stocks of paddy to be husked, petty trading goods to be sold) Sale of productive assets (small animals, livestock, tools, plots of land etc.) Pull children out of school to work Leave a microfinance program	Hard to reverse; indicators of severe distress and increased vulnerability to further stress. May constitute ratchets from which a household may be unable to recover.

Source: Montgomery 1996.

Ex post coping strategies further depend on the nature of the shock or economic stress event including (1) the level of the loss in relation to the household's resources, (2) the frequency of the event, (3) whether the event is covariant or idiosyncratic; and (4) whether the event is temporary or permanent. How a household copes also is affected by the timing and sequencing of

the shocks. Often it is not the single event that pushes someone into greater poverty but a mix of serial and simultaneous crises that exhausts all resources. As described by Montgomery, shocks that result in minor shortfalls in income and are reversible can be met through low-stress coping strategies, such as spending less or mobilizing labor (see Table 8). More sudden and less reversible shocks require medium-stress coping strategies such as using up cash savings or borrowing from friends or relatives. Major crises and severe nonreversible economic stress events are likely to demand high-stress coping strategies such as selling off productive assets or pulling children out of school, both of which have longer-term negative consequences for the household.

Strategies for managing loss can be categorized into three basic groups:

1. Consumption-modifying strategies;
2. Income-raising strategies; and
3. Personal financial intermediation.

Table 9, Client Strategies for Coping with a Loss (Ex Post), presents the variety of strategies for coping with loss as described by clients in the WDR field studies. These findings, as well as those from the literature review, highlight the universal importance of assets in coping with loss (see Table 9).

TABLE 9.

Client Strategies for Coping with a Loss (Ex Post)

Strategy	Bangladesh	Bolivia	Philippines	Uganda
Draw on financial assets	Increase line of credit from BRAC Use BRAC savings Use cash savings	Withdraw from savings	Borrow from moneylender Use CARD Bank multipurpose loans	Withdraw from savings Borrow from relatives
Draw on physical assets	Draw down food stocks	Sell assets (more likely among poor borrowers)	Sell productive assets (such as selling pigs early, before they are mature)	Borrow against mortgaged assets and sell assets Sell off stock from business (draw down working capital)
Draw on human assets		Migrate to find new income opportunities	Mobilize family labor	Relocate back to village Work harder Withdraw children from school

Strategy	Bangladesh	Bolivia	Philippines	Uganda
Draw on social assets	Avail of relief efforts Borrow from relatives	Seek support from relatives, ROSCAs, and solidarity group members	Become dependent on relatives Approach family members for help Approach friends for help Approach government for help Draw on reciprocal social support networks	Become dependent on relatives Obtain assistance from *Munno Mukabi* (self-help groups) Send dependent relatives back to village
Cash/resource management	Pay off BRAC loans (to get a new one) Cut back daily consumption	Cut food expenditures Cut clothing expenditures Cut education expenditures (more likely among poorer borrowers)		Reduce household consumption Minimize expenditure Reduce number of meals per day Move to cheaper accommodations

Source: WDR field studies.

1. Consumption-modifying Strategies

Reduced consumption enables households to reallocate existing income flows to manage the shock or economic stress directly. Alternatively, it enables households to borrow a chunk of money to cope with the shock or economic stress event and to use a portion of existing income flows to repay loans. The ability of a household to reduce consumption depends on the initial endowment of the household in terms of income and assets and on whether or not it already is at a bare-minimum consumption level.

People can reduce consumption in an infinite variety of ways. In Bolivia, clients described cutting expenditures on food, clothing, and education—in that order. In Uganda, people minimized expenditures by reducing the number of meals per day and moving to cheaper accommodation—strategies that clients associate with extreme poverty. In Bangladesh, clients mentioned cutting back on daily consumption to manage losses associated with the floods. In the Philippines, clients cut back on food spending and other consumption in response to shocks. Other studies regarding how clients cope with shocks and economic stress events refer to consumption-reducing measures such as changes in diet, reduced investments in health and education, and postponing marriage and other social obligations (Montgomery 1996; Dunn, Kalaitzandonakes, and Valdivia 1996; Shipton 1990 as cited in Barnes 1996).

People also reduced their consumption-related expenditures by drawing on their social assets in the community, which may involve receiving in-kind assistance in the form of food, childcare, or housing or other forms of help.

Clients in the WDR studies described two ways to cope with shocks that do not fall neatly under reduced consumption, but which reduce expenditures and have consequences beyond the

crisis itself. The first is to reduce indebtedness (that is, reduce the consumption of loans) by dropping out of a microfinance program or by defaulting on a loan. This strategy has negative consequences over the long term because it cuts off an individual or household from this important source of cash for coping with shocks. People place importance on maintaining access to credit (both informal and especially formal sources) and recognize the negative consequences of leaving a program, so this often is a last resort. A second way is to divest of a critical but often costly social asset: the extended family. This strategy may reduce expenditures in the short run, but it severely limits an individual's or household's future options. Again, it is not a desirable option because of its long-term negative consequences.

2. Income-raising Strategies

To raise income in response to a shock or economic stress event, clients can employ two strategies: mobilizing labor and selling physical assets.

a. Mobilizing Labor

Labor is one of the most important assets for poor households, and mobilizing labor is a common strategy for generating income to cope with a shock or economic stress event. In the Philippines, working longer hours and mobilizing child labor are strategies that clients use to deal with shocks and economic stress events. Similarly in Uganda, coping strategies include working longer hours in existing activities, taking children out of school to work, and relocating back to their home villages to farm. Putting children to work, while commonplace, may save school fees but usually yields only small returns in the short run and can preclude positive returns to the household over the longer term. Other strategies mentioned in the field studies include starting a new business, getting a new additional job, letting employees go and replacing them with family labor, and migrating within or outside the country to find new work opportunities.

A study in Gambia shows that women are more apt than men to mobilize labor in response to a crisis, because women have fewer other assets to draw upon or sell (C.I.D.R. 1991). In urban India, similarly, another study found more change in labor supply for women than for men in response to economic change (Noponen 1991). Women were more likely than men to start or stop working, increase or decrease their earnings, and add work. Nonetheless, non-labor strategies such as informal borrowing were far more important.

Other studies underline the importance of labor mobilization in responding to shocks and crises. In Bangladesh, some people pledge future labor in return for advanced wages (Montgomery, Bhattacharya, and Hulme 1996). A study in India found bonded labor to be a desperate response to crisis (Noponen and Kantor 1997). The AIMS baseline studies in Zimbabwe and India show that some clients work more hours in response to financial shocks (6 percent in Zimbabwe and 14 percent in India) but that other strategies such as informal borrowing, use of savings or earning, or reduced consumption are more prevalent. Moser's urban research shows the labor of women and children to be a particularly important response to economic stresses. Other studies further confirm the importance of labor mobilization in response to shocks (Bousso et al. 1997; Townsend 1995).

b. Selling Physical Assets

While labor mobilization can be thought of as selling a human asset, people also sell physical assets in response to shocks and economic stress events. The WDR research found that clients sell animals, pawn durable goods, run down their stocks of food or business inventories, and sell other kinds of productive and non-productive assets. They may rent out their housing, land, or machinery. In some cases they convert their homes into business premises. In Bolivia, the research found poorer clients, more than richer clients, were more likely to sell productive assets, a negative strategy that affects their longer-term income prospects. The Philippine study shows that clients try to maximize their use of human and social assets before selling off productive assets. CARD Bank clients prefer to pawn physical assets if they expect to recover. Only when they are desperate do they sell them. In one example, a client, whose husband lost his job, was forced to sell a pig before it was fully grown. Asset liquidation, however, is not only an action to contain crises. Some CARD Bank clients sell assets to repay their program loans, which enables them to start fresh with a new CARD Bank loan.

Noponen and Kantor's study in India (1997) found that selling off assets was not as common among urban women in response to a crisis. Borrowing strategies were much more prevalent, and women are more likely to borrow against assets than to sell them. The AIMS baseline studies in Zimbabwe, Peru, and India found almost no evidence of households selling assets in response to crises. Again, the use of savings and borrowing were much more common. In Cambodia, in response to economic stress events, microfinance clients sell gold and draw down their stocks by selling sugar or rice at low prices (Bousso et al. 1997). In rural Kenya people liquidate stocks and sell assets in response to crises (Shipton 1990 as cited in Barnes 1996). The vulnerability of a household to shock or economic stress event is reflected in how they respond: (1) at stage one, households are able to hold on to key productive assets; (2) at stage two, they dispose of land or other key productive assets; and (3) at stage three, their physical assets are depleted and they are forced to resort to more desperate measures (Corbett 1988 as cited in Barnes 1996).

Selling physical assets is a less-preferred response to coping with shocks because people lose the use of the assets. Moreover, they do not always get a good price for them, especially if the sale is in response to a covariant shock and other people are trying to sell their assets at the same time. Selling a productive asset often is a negative strategy, used only as a last resort.

3. Personal Financial Intermediation

In response to a shock or economic stress event, clients can use the strategy of personal financial intermediation, which includes drawing on savings deposits, drawing on insurance, and taking loans (Rutherford 1999).

a. Drawing on Savings Deposits

Clients interviewed in the WDR studies mentioned using cash savings in response to shocks and economic stress events. Somewhat surprisingly, however, drawing on savings

deposits is not always the first option. Clients often prefer to use other strategies if and when they have the option. In the Philippines, for example, the research found more limited use of financial assets than human and social assets in response to shocks. Following the floods in Bangladesh, BRAC found savings withdrawals to be much less than expected.[21] This response may be due, in part, to the fact that many BRAC offices were inaccessible. But perhaps more important is the clients' determination to keep their credit lines open, preferring not to go below the minimum savings balance required to obtain a new loan with BRAC.

Several research studies cite the importance of cash savings for poor households in responding to downward pressures (Townsend 1995; Morduch 1998a; Zeller et al. 1997). Other studies find that people often prefer to borrow, rather than use savings, to cope with crises. Noponen and Kantor's study in India (1997) found that borrowing from a moneylender is actually more common in response to a shock than is using savings, although it is not clear if those who borrow had any savings to start with. Lund and Fafchamps (1997) found that people prefer to use informal loans, even when they have precautionary savings. In Montgomery's hierarchy of coping strategies, calling in informal debts from kin and neighbors is ranked as a low-stress strategy, and the use of cash savings is ranked as a medium-stress strategy. The AIMS baseline studies show some regional differences in the relative importance of savings versus borrowing in response to financial shocks. In Peru and Zimbabwe, households use savings more than borrowing in response to financial shocks, while in India, borrowing is more prevalent.

b. Drawing on Insurance

Borrowing and gift exchange among friends and relatives are important forms of informal insurance that people depend upon. But people also use other forms of group-based insurance. For example, people throughout the world participate in funeral societies or burial funds, whereby a group of people pool funds to cover expenses related to the death of a member. In Ethiopia, these funeral funds are organized through local government offices (*kebeles)*, where tents, chairs, and cooking utensils purchased by community groups are stored in their offices. In Kenya, funeral funds are organized along ethnic lines and are particularly important in urban areas because of the costs associated with shipping bodies back to rural homelands for burial. People also participate in other social funds that provide mutual support for births, marriages, and other expected life cycle events. Clients in Uganda and Bolivia mentioned collecting life or accident insurance from employers when their spouses died or were injured while working a formal job. Rutherford describes self-help insurance funds set up by people in the slums of Dhaka to protect against losses due to fires. Townsend (1995) finds that households in Thailand use rice banks, housewife funds, and local health insurance funds.

CARD Bank is the only MFI covered by the study to offer insurance to clients. Established in 1994, the Members' Mutual Fund (MMF) insures against the death of the member, disability due to old age (clients who receive the disability must be over 65), and disability due to sickness. A 2.5 percent loan redemption fee charged by CARD Bank on loans exceeding a certain amount goes into the MMF. Moreover, each CARD Bank member contributes two pesos weekly

[21] During these floods, lower-than-expected savings withdrawals also were observed at BURO-Tangail (Wright 1999, personal communication).

to the MMF. It is a valued product. One CARD Bank client said that the old-age pension was one of the main reasons she has remained a member.

c. Borrowing

Borrowing is one of the most prevalent and important responses to shocks and economic stress events for poor households. Clients interviewed in the WDR field studies frequently mentioned borrowing from informal sources such as friends, relatives, and moneylenders to deal with day-to-day economic stress events and life cycle shocks. They also referred to the role played by their MFIs. In the Philippines, for example, CARD Bank has an emergency loan facility, although people often borrow from it for other purposes because the interest rate in lower. In Bangladesh, following the floods, BRAC clients were offered the option of borrowing 50 percent of their current loan amount as a new loan and extending their repayment schedule by six months. Members with a good repayment record were allowed to pay off the balance of their outstanding loan in advance so that they could apply for a new loan. Rather than borrow additional funds, however, clients gave high priority to repaying their existing loans, often by borrowing (interest free) from relative. In Bolivia and Uganda, groups have established emergency funds that clients can access in response to a crisis, although this is not always their first line of defense. In most circumstances, clients borrow outside their MFIs, usually through an informal source.

Borrowing from informal sources in response to a crisis is extremely common and in many cases draws on social assets that have been built up over time. Loans from friends and relatives are extremely common for smoothing consumption during periods of economic stress. Lund and Fafchamps (1997) found that such loans were used almost exclusively for consumption, and not for investment (although they are sometimes used to pay school fees). In a Kenya study, one microfinance client was asked if he ever borrowed from friends or relatives for his business. His astonished response was, “Of course not”; that it would be much too risky. It clearly was outside the scope of acceptable loan use (Sebstad and Walsh 1991).

In some cases loans from friends and relatives take the form of gifts with the tacit agreement to reciprocate when needed (Morduch 1998a). Loans from family and friends usually do not have interest and, unlike MFI loans, are open-ended, allowing people to pay back if and when they can. In most cases, a strong emphasis on reciprocity exists (van Bastelaer 1999; Lund and Fafchamps 1997; Bousso et al. 1997; Townsend 1995). In cases where the exchange is not reciprocal, people enter into asymmetrical interpersonal dependencies that can be exploitative or humiliating (Shipton 1990 as cited in Barnes 1996). Recent research suggests that systems of reciprocal exchange may be more effective for slightly better-off households than for those in more difficult circumstances (Morduch 1998a). The WDR field findings generally support this conclusion. The study found that most clients from moderate poor and vulnerable non-poor households have a cushion of resources to draw upon to deal with risks, and their informal systems appear to be in relatively good working order.

Moneylenders, merchants, and employers are a less-preferred option, although they may be the only option for larger or more immediate needs. Noponen and Kantor (1997) found borrowing from moneylenders to be the most common response to an economic stress event

among SEWA's urban members (48 percent). It was more common than borrowing from employers (10 percent) and borrowing from family members (4 percent). Women's earnings play a major role for households to secure informal loans from these (and other) sources (Noponen 1991).

One finding is the somewhat limited role of MFIs and other formal sources of credit in helping people smooth consumption following a shock or economic stress event. People generally use other non-program sources of credit. Whether this choice is a preferred option or their only choice varies according to the design of the MFI or other credit program, the timeliness and flexibility in providing credit, the type of shock, and the alternative options available at the time. Some MFIs discourage the use of program credit for consumption, especially in response to a shock. Other programs (CARD Bank, for example) have emergency loans designed for this purpose, but they often are used for other things. The AIMS baseline study in India shows that fewer than 10 percent of SEWA clients ever used a SEWA loan to cope with a shock, while as many as two-thirds used non-SEWA sources for this purpose (Chen and Snodgrass 1999). Noponen and Kantor's study (1997) confirm the rare use of SEWA loans for this purpose.

Along with these studies from India, the Philippines study by Lund and Fafchamps (1997) confirms the critical role of informal borrowing. In the community studied, informal borrowing makes up 93 percent of all borrowing, and only 3 out of 206 households were not involved in any informal credit transaction during the study period. Indebtedness through informal sources of credit is probably the most common response strategy across regions and countries.

C. Summary of Strategies Microfinance Clients Use to Reduce Vulnerability

The research suggests that microfinance clients and their households reduce their vulnerability to shocks and economic stress events ahead of time by (1) increasing their sources of income, (2) building up a strong and diversified base of assets, (3) managing money well, and (4) maintaining access to multiple sources of credit (including program microcredit). Women's empowerment also plays an important role in reducing vulnerability by increasing women's contribution to household income, their control over assets, and their role in household decision-making. While clients may emphasize one strategy over another at a particular time, a mix of options and a mix of assets in their household portfolio constitute the foundation for reducing the vulnerability of households.

Clients further reduce their vulnerability by using relatively positive coping mechanisms for dealing with the shocks and economic stress events after they occur. The WDR research found few examples of microfinance clients using negative or high-stress strategies to cope with shocks. The limited use of negative or high-stress coping strategies applies both to dealing with day-to-day and life cycle shocks (such as illness, death, and loss of employment) and to dealing with major crises (such as the Bangladesh floods). In the face of crises, clients go to great lengths *not* to use their savings; *not* to sell off their assets (especially productive assets); *not* to take their children out of school; and *not* to reduce their access to multiple sources of credit (including MFI program credit). They prefer to borrow from relatives and kin, mobilize labor, or reduce

consumption. These choices reflect their strong emphasis on maintaining their household resource base and productive capacity.

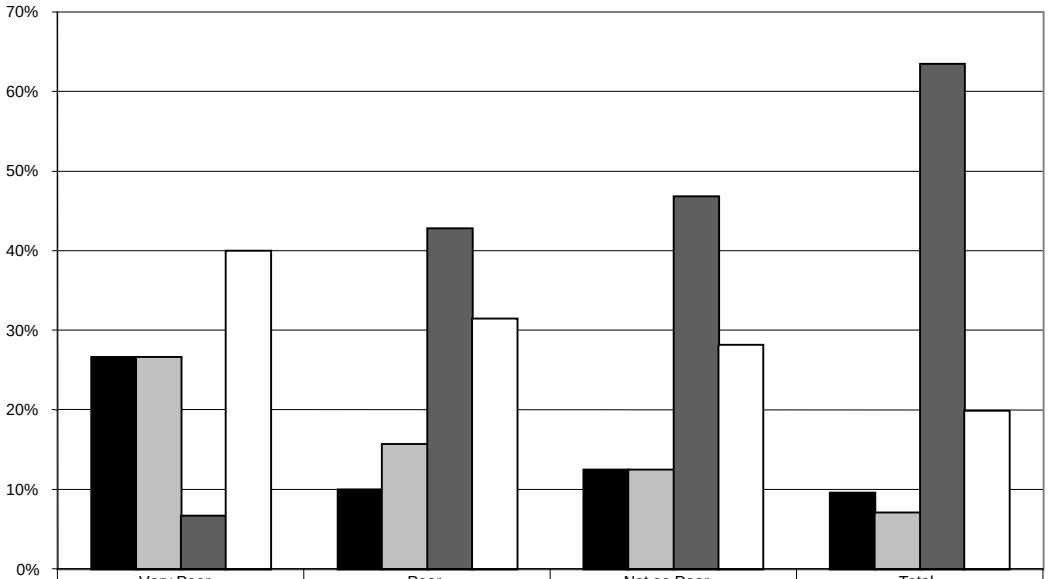
The response of BRAC households to the massive 1998 floods in Bangladesh exemplifies this point. The WDR research found that households used an array of low- to medium-stress strategies, including drawing down food stocks, using up cash savings, borrowing from relatives, and borrowing from moneylenders. In light of the frequency of floods in Bangladesh, many of these strategies had been honed over time. Member households placed high priority on maintaining their access to BRAC loans by leaving their savings in place (which constitutes the basis of eligibility for loans) and continuing with repayments even in the midst of this major covariant crisis. Loan repayments often were met by borrowing (interest free) from relatives.

The poverty level of a household will affect its coping strategy. The field research and literature suggest that, in general, the lower the level of household resources in terms of income flows and assets, the fewer and more damaging the options they will have for protecting against and coping with shocks and economic stress events. In response to a shock or economic stress event, households that are more vulnerable are more likely to mobilize labor or use higher-stress coping strategies. With few physical and financial assets, they are more likely to diversify into low-risk activities to protect against risk ahead of time. They also are more vulnerable because smaller shocks have a larger effect on poor households.

The WDR study in the Philippines shows that poorer clients' households rely more on labor mobilization, increased enterprise activity, and other coping strategies such as reducing expenditures and seeking help from neighbors and relatives. Less-poor clients' households rely more on borrowing. (See Figure 3, Coping Strategies of CARD Bay FGD Participants by Poverty Level.) In Bolivia, the WDR study found that more vulnerable clients tended to cope with crisis by cutting back on children's schooling and selling assets. They were less likely to cut back on consumption, search for extra work, or draw on savings. High-stress strategies are more negative, less reversible, and tend to perpetuate the cycle of poverty.

FIGURE 3.

Coping Strategies of CARD Bay FGD Participants by Poverty Level



	Very Poor	Poor	Not so Poor	Total
Seek Employment	27%	10%	13%	10%
Engage in Microenterprise	27%	16%	13%	7%
Borrow	7%	43%	47%	63%
Other	40%	31%	28%	20%

Note: Differences by poverty level statistically significant at Alpha = 0.01.

Regarding gender, the study finds that women are very active in strategies to reduce vulnerability. Diversification of income sources is a very common strategy for women to reduce vulnerability. Cash savings is a female domain in many places. Women generate savings through their activities and use them to build assets through children's education, housing improvements, business expansion, health care expenditures, and the maintenance of reciprocal social networks. Women's control of income is important for reducing vulnerability as it is the basis for widening household social networks, accessing informal loans, and investing in human assets. Social assets are particularly important for women because they often have limited access to other assets in times of need. For example, women generally have fewer options for borrowing in communities, which is one reason they value microfinance services so highly. In response to a crisis, a repeated pattern across the studies is that women are more likely than men to mobilize labor because they have a limited range of other options. Selling physical assets is more of an option for men because they have them.

These findings suggest that microfinance clients typically have multiple options for dealing with risks and are quite resilient. On one hand, this resilience may be because program participation has enabled them to build a base of resources to draw upon. Or it may be that they had such a base to begin with. On the other hand, clients who have had to resort to more negative

strategies in the face of more severe or repeated shocks may have been forced to drop out of programs. Further research to explore this issue would be useful.

1. The Importance of Assets

The research further shows the critical and central role that assets play in the process of protecting against and coping with risks and reducing vulnerability. (See Table 10, Clients' Use of Assets in Protecting against Risks and Coping with Loss.) Accumulating all kinds of assets is important because it provides a wide base of resources to draw on to cope with shocks and economic stress events, and to take advantage of opportunities to increase household income when they present themselves. Financial assets can be used to smooth consumption, or they can be invested in a variety of ways that help smooth incomes. Physical assets can be pawned or mortgaged or turned into productive assets to increase household income. Human assets form the basis for labor mobilization, a key strategy for coping with shocks and economic stress events. Social assets, as shown in the study, are a critical source of financial and non-financial support in times of need; clients place high priority on building and maintaining these assets, and they provide reciprocal support to others when they need it.

Assets are linked to other key strategies for protecting against risk. Human and productive assets provide the basis for diversifying sources of income. Assets of all kinds provide a basis for money management by offering various places to 'park' money until it is needed. Assets controlled by women provide a means for them to negotiate for more say in decisions within their households, to participate more actively in social networks and groups outside their households, and to access various sources of credit directly in times of need.

TABLE 10.

Clients' Use of Assets in Protecting against Risk and Coping with Loss

Clients' Assets	Protecting against Risk (*ex ante*)	Coping with Loss (*ex post*)
Financial Assets	*Savings/insurance* Add to voluntary savings Earmark savings for particular purposes Join ROSCAs Invest in insurance *Access* Improve access to financial services by joining an MFI	***Savings*** Cash savings (voluntary, forced, earmarked) *Access* Borrow from MFI, informal sources, moneylenders Join MFI program Leave MFI program
Resource/Cash Management	*Income management* Diversify income sources Stabilize income flow Purchase in bulk *Asset management* Increase household liquidity Diversify businesses Add new business *Loan management* Split use of loan Patch loans Refinance loans	*Consumption/income management* Reduce consumption Modify consumption Improve family budgeting *Loan management* Reschedule debts Get an emergency loan
Physical Assets	*Accumulate assets* Buy land Buy house Buy livestock Buy consumer durable goods with resale value *Diversify assets* Increase percent of liquid assets	*Deplete assets* Sell animals Run down stocks Sell assets (household assets, productive assets) *Retain assets* Pawn durable goods Rent property Use residence as business Rent out machinery

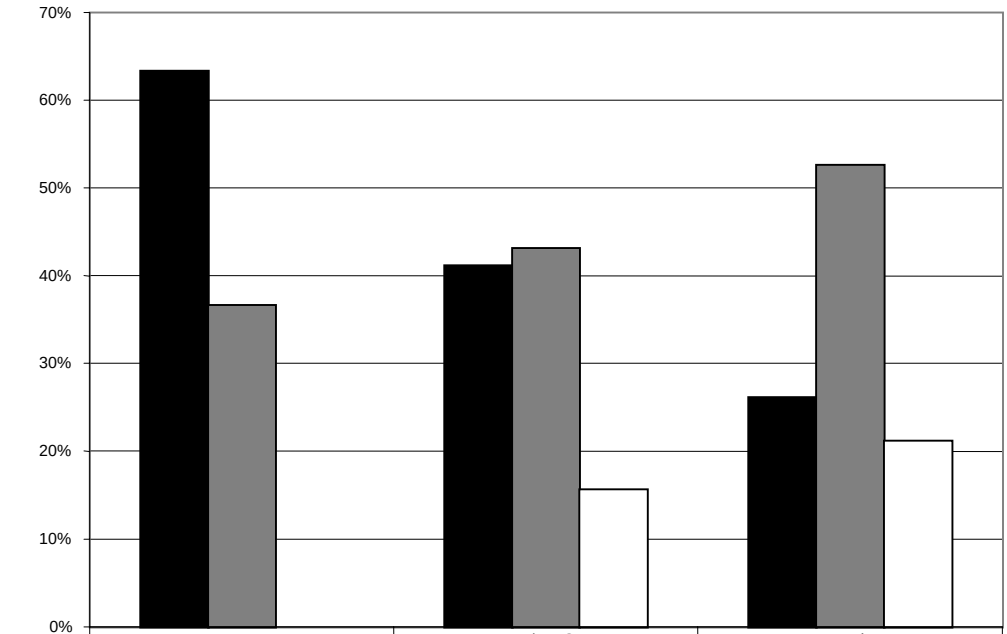
Clients' Assets	Protecting against Risk (*ex ante*)	Coping with Loss (*ex post*)
Human Assets	*Labor mobilization* Commence self-employment Commence wage employment Seek overseas employment Seek seasonal migration *Education/training* Invest in education of children Seek informal apprenticeships *Health* Invest in preventative health care	*Labor mobilization* Work longer hours Mobilize family labor Start a new business Get a new (additional) job Let employees go Go to work overseas Migrate Mobilize family labor *Other* Take children out of school Pray
Social Assets	*Horizontal* Join MFI and other groups Do favors for reciprocity Join social support groups *Vertical* Make friends with rich	*Horizontal* Get a loan from family Move in with extended family Divest of extended family *Vertical* Depend on government assistance (public support, relief assistance)

Source: WDR field studies.

Having a mixed base of assets offers people more options for dealing with a shock or economic stress event. Having a choice and room to maneuver precludes the use of more negative strategies. It also provides the basis for dealing with different kinds of shocks that may place different kinds of demands on the households. Moreover, people can use up one kind of asset and still have another kind to draw on. The findings from the Philippines field study illustrate that very poor households have a narrower range of assets to draw on compared to poor and not-so-poor households, reflecting a more limited range of options for dealing with risks. (See Figure 4, CARD Bay Clients' Coping Strategies by Type of Asset Employed by Poverty Level.) Very poor households depend almost entirely on human and social assets, and they rarely use physical or financial assets. In general, poorer households are more constrained in terms of coping mechanisms and protection options.

FIGURE 4.

CARD Bay Clients' Coping Strategies by Type of Asset Employed and Poverty Level



	Very Poor	Poor/Not So	Total
Human Assets	63%	41%	26%
Social (Borrowing + Govt + Help)	37%	43%	53%
Physical and Financial	0%	16%	21%

Note: Differences statistically significant at alpha = 0.05 but not with alpha = 0.01.
Source: WDR Philippines field study.

Findings on the Role of Assets in Reducing Vulnerability in Uganda

- Some clients diversified assets to reduce vulnerability. A common pattern was investment in three types of assets with varying degrees of liquidity: savings in kind (livestock, household items), passive asset investments (primarily housing and land for rent), and key productive assets.
- Some clients used business profits to broaden their asset base as a protection strategy; others used financial assets to purchase stocks after a loss; still others used savings as a protection against future risk. 'Targeted' savings often were held in multiple accounts to make them harder to get at.
- Children's education is considered the route toward upward mobility and social security for parents; health care is seen as protecting the productivity of the household labor force and enabling more effective use of household resources.
- Social assets in the form of relationships of trust with friends and family are important for reciprocal borrowing arrangements. *Munno Mukabi* self-help groups are important for coping when life cycle pressures occur, including marriages, births, and funerals. UWFT groups sometimes promote the development of such self-help groups.

2. Some Limitations of Informal Mechanisms for Reducing Vulnerability

Shocks and economic stress events can have devastating effects on individuals and households if they are not mitigated. As highlighted in the preceding sections of this study, in the absence of formal insurance, personal financial intermediation and informal risk-sharing systems play an important role in mitigating the effects of shocks and economic stress events on income. While many studies emphasize the efficiency and effectiveness of these forms of self-insurance and informal risk sharing, recent research reviewed by Morduch (1998a) reveals that these mechanisms can be fragile and unreliable, especially in protecting very poor households (Alderman and Paxson 1994 and Morduch 1995 as cited in Morduch 1998a).

According to Morduch, one shortcoming of informal mechanisms is that they do not cover all shocks. They are used primarily for high-frequency and idiosyncratic shocks and economic stress events but less commonly for many other shocks. For example, informal mechanisms such as savings, reciprocal gifts, and informal loans are better in dealing with high-frequency shocks (such as transient illness, crop loss, or temporary unemployment) than in dealing with low-frequency shocks (such as old age, chronic poverty, or disability). The timing of shocks and economic stress events across households and communities also affects the effectiveness of informal mechanisms. Idiosyncratic shocks such as transient illness, death, or temporary disability affect only some households in a community and usually at different times. They are easier to insure against. By contrast, covariant shocks such as inflation or drought affect all households and usually at the same time and thus are more difficult to insure against.[22]

For those shocks that informal mechanisms do cover, they often cover only a portion of the loss. They also are weak in insuring against the loss of an income earner, one of the more prominent and devastating shocks experienced by many microfinance clients. Moreover, informal mechanisms tend to be weak against repeated shocks. When bad conditions persist for several years in a row, it is especially difficult for poor households to maintain a sufficient base of resources to cope effectively. Informal systems also can be fragile when they are needed most. To the extent that they depend on selling assets, asset prices can fluctuate widely and usually fall after a covariant shock occurs when everyone tries to sell their assets at the same time (Morduch 1998a).

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[22] Townsend's study of shocks and insurance in Thailand, India, and the Ivory Coast looks at the idiosyncratic versus covariant nature of shocks experienced by poor households (Townsend 1995). He focuses on idiosyncratic shocks such as human illness, sickness, and death of plow animals. He finds that the income fluctuations resulting from these shocks vary from one region to another. In India, for example, particular household incomes vary considerably over time from the village average. He finds this variance to be true for all types of households. This finding suggests that few households diversify in response to shocks, probably because they earn income in different ways so that fluctuations do not move at the same time. Similarly, in Thailand he finds considerable fluctuation in income levels across counties in a given region and large idiosyncratic shocks among entrepreneurs. Deaton (as cited in Townsend 1995) also finds considerable variation in shocks and income fluctuations within villages in the Ivory Coast. He concludes that shocks experienced by poor households tend to be more idiosyncratic and less covariant than generally expected and thus are more insurable. He also finds that income fluctuations do not move as much in unison as one might expect, which indicates less informal risk sharing than might be expected among households. This finding suggests scope for developing risk-sharing mechanisms, both formal and informal, to reduce the vulnerability of poor households to these types of risks.

Another shortcoming of informal insurance mechanisms is their high cost. Households not only spend a large amount in relation to their incomes to reduce exposure to shocks, but they use protective strategies that can preclude experimentation and innovation, thereby contributing to longer-term dynamic losses. Research also suggests that informal insurance tends to work least well for the very poor. Informal contracts, by definition, are self-enforcing. But when everyone is down on luck and insurance is needed most, reciprocal exchange tends to fall apart or offer less return (Morduch 1998a).

Finally, informal systems can create tensions in the family. In times of need, relatives are generally called on first, but tensions may develop if they have a limited pool of resources to draw on. Women often bear the brunt of many of these stresses but have fewer resources to draw on in dealing with them (Morduch 1998a).

In summary, despite the limitations of informal mechanisms, the WDR research suggests that many microfinance clients do fairly well in dealing with shocks and economic stress events. Otherwise, they probably would not be in microfinance programs, at least as borrowers. As noted earlier, many of the extreme poor probably self-exclude from borrowing. Most clients have a cushion of resources and connections to draw on. They manage money well and use a variety of inventive and sometimes intricate strategies. The preference is to use low- and medium-stress strategies for coping with shocks and economic stress events, which suggests they are not the most vulnerable within their communities. It is likely that some clients who have dropped out of programs have not been as well positioned to deal with shocks and stresses and have been less able to absorb the stress of loan repayments.

The research further indicates that clients do not typically use MFI program loans or savings to smooth consumption following a shock or economic stress event. As the next section discusses, however, program loans and savings do play a role in increasing sources of income and building assets to draw on in times of need. They also help some clients rebuild their base of resources following a shock.

VI. The Role of Microfinance in Reducing Vulnerability

This section of the study considers, specifically, the role of financial services in reducing vulnerability to risk. It examines two things: (1) how clients use financial services to manage risk in the context of their household economic portfolios and (2) the impact of financial services on selected indicators related to vulnerability. The first part of this section draws on the field study findings and other literature to examine the *use* of loans, savings, and credit group participation to protect against risks and cope with losses associated with shocks and economic stress events. The second part of this section reviews previous impact studies for findings on the *impact* of microfinance on increasing sources of household income, building all kinds of assets, managing money and other household resources, and empowering women.

A. Findings on the Use of Financial Services to Manage Risk

This section explores different ways that clients use financial services. It explores how they use microcredit to build the household income and asset base, and how they use microcredit to manage money. It further explores the patterns that have developed in the way that clients use loans, as well as temporal issues in loan use, gender differences in loan use, and the role of women in decision-making about loan use and management. This section also describes how clients use savings and how they participate in credit groups.

1. Loan Use

The design of many microfinance programs assumes that clients invest their loans in microenterprises and that they repay them from their microenterprise earnings. Increasingly, however, both lenders and borrowers acknowledge that loan funds are fungible. While in the past fungibility has been seen as a problem within the context of credit for the poor, this belief is less prevalent today. The industry increasingly recognizes that flexibility in the use of loan funds enables borrowers to allocate the funds to their best advantage at a given point in time. Because of its dynamic nature, flexibility in loan use is key in efforts to reduce vulnerability. The nagging concern that, without supervision, borrowers from poor households will ‘consume’ rather than ‘invest’ their loans and therefore have no way to repay them has proven unfounded. The bulk of loan funds are used for a wide range of investments. Another concern—that clients will waste resources by investing loan funds in something they would have invested in anyway (substitution)—reflects a narrow and linear view of household money management strategies. Such use may free up funds that households can use in other ways and provide a chunk of money when it is needed. Fungibility—the interchangeable nature of resources—is not a problem for microentrepreneurs; it is a solution.[23]

The WDR field research asked clients how they used their loans; and their responses provided useful insights into processes through which clients use financial services to meet their

[23] Comment made by David Hulme in a meeting to discuss the findings from this research in March 1999.

needs, manage household resources to their best advantage, and reduce their vulnerability. The findings reveal circumstances under which people need a chunk of money; how much they need; when they need it; and the appropriate size, length, and cycle of repayments. This type of information can be useful for improving the design of products and services that meet the needs of different groups of people.

Flexibility and Loan Use in Uganda

A UWFT client shared the following experience: "In my case these loans have helped me in a somewhat different way. Last year my wife and I lost our jobs at the same time. It was around this time that the UWFT loan I had applied for came through. This was our salvation. Although it was originally meant for business, we used it to take care of rent and our basic needs while we embarked on job hunting. We eventually found employment, made repayments on time, and UWFT has no complaint with us. This is not an uncommon example of how the loan helps people in times of need."

As shown in Table 11, Client Use of Financial Services to Reduce Vulnerability, microfinance clients use MFI loans for a wide range of purposes, and many of these purposes help them protect against risks ahead of time. They invest loan funds in existing or new businesses to improve incomes. They also use the funds to support household economic goals related to accumulating or retaining (1) physical capital, such as investments in housing, vehicles and equipment, or physical assets used as a form of liquid savings such as jewelry or livestock; (2) human assets, such as investments in school fees or preventative health care; or (3) social assets, such as helping out friends and relatives who are in need, taking in relatives' children when they are abandoned or orphaned, or contributing to cover the costs of funerals, weddings, and birth ceremonies. While some lenders see the use of loan funds for investments in education, health, and social obligations as consumption, others realize that it actually contributes to the process of building human and social assets that can be drawn upon in the event of a shock or economic stress event. In some cases, clients save a portion of loan funds in anticipation of an emergency or to cover future loan repayments in case they find themselves short on cash.

TABLE 11.

Client Use of Financial Services to Reduce Vulnerability

Loan Use Categories	Bangladesh	Bolivia	Philippines	Uganda
To build income base	To expand existing trade or agricultural activity To start a new enterprise To increase the labor supply of client To reduce seasonal variation in income by diversifying within or among household enterprises To take advantage of opportunities for alternative sources of income generation following the floods	To diversify income sources To increase levels of working capital	To diversify into low-risk sources of income To get into non-seasonal income-generating activities	To diversify income sources To increase levels of working capital To stabilize income
To build asset base	To repair or improve housing (initial loans) To repair or renovate business premises To repair productive asset (e.g., boat) To purchase a productive asset (cow, rickshaw, chickens, tools, fish net) To build a new house To pay for medical expenses To buy furniture	To build a new house To make housing improvements To purchase land To purchase new furniture To increase investment in human assets education To pay for medical expenses To purchase enterprise fixed assets	To do housing repair and maintenance To make housing improvements To fund acquisition of basic infrastructure such as water and electricity connections To invest in a Karaoke machine to keep kids off the streets and thus maintain the family's reputation (social asset retention) To invest in new furniture to increase the status of family (social assets) and demonstrate the value of women's work (human assets)	To generate business profits to use to buy houses and land To increase investment in human assets (education and health) To maintain reciprocal social networks (lend to relatives and friends)

Loan Use Categories	Bangladesh	Bolivia	Philippines	Uganda
As part of cash/resource management strategy	To repay existing debt (initial loans) To cover expenses related to mortgaging land	To manage cash flow to meet daily household expenditures following sickness, death To meet seasonal food deficit needs To meet short-term consumption needs during times of stress	To manage cash flow to meet daily household expenditures following sickness, death, or natural calamities To support loss of income due to death or unemployment To join a ROSCA To build up a credit rating	To increase credit worthiness

Source: WDR field studies.

Following a shock or economic stress event, clients often use program loans to recover lost stock, make repairs on premises or equipment, or start an alternative or additional business—in essence, they use the loan funds to rebuild the household base of income and assets. Clients sometimes use program loans, if they are on hand, to smooth consumption following a shock but less often than lenders would expect. In many cases, such use of program loans precludes the use of more negative coping strategies. When faced with an immediate emergency need for a lump sum of cash, clients typically borrow from informal sources. The exception to this in the WDR study was in the Philippines where CARD Bank provides multipurpose loans that are available within a day and can be used for emergency needs.

When clients exhaust their resources to cope with a shock or economic stress event, they often are forced to drop out of MFI programs. The Philippines field study, for example, included interviews with a small group of dropouts, three of whom had been in the program for a number of years and had large loans. Confronted with different types of shocks, all three women experienced mounting delinquency. To cope with repayment, two of the women started out by cross-financing from money lenders, then by selling household assets, and finally, by withdrawing forced savings to repay their loan balances. When the third client fell behind in her repayments, her fellow group members seized her assets. With the seizure came an erosion of her social assets, a resource often used in time of need. These examples demonstrate the need for risk protection and coping mechanisms, not just for external shocks and economic stress events, but also for coping with the increasing exposure to risk that comes with larger loans.

The other field studies and most of the impact literature did not include data on clients who had left programs.[24] Thus, the discussion here focuses largely on those clients who have been able to continue to participate in a microcredit program in the face of shocks and economic stress events, and how they have done it. The question of what happened to dropouts and how the design of financial services can be improved to help poorer clients through shocks and economic stress events is a critical topic for further research.

[24] Clients leave MFI programs for a variety of reasons aside from defaulting on their loans. Some have a limited need for finance, others wish to 'rest' between loans, and some find that the program does not work for them. One should not assume that all dropouts experience fewer positive benefits than those who remain in programs.

a. Use of Microcredit to Build the Household Income Base

Table 11 shows various ways that clients use loans to increase sources of income, stabilize income, and raise levels of household income. Strategies include diversifying into new or alternative low-risk activities, into non-seasonal activities, or into new product lines. They also include increasing levels of working capital in existing businesses.

In the Philippines, CARD Bank clients used their loans to invest in a variety of low-risk enterprises and non-seasonal income generating activities to ensure a small but steady flow of income. In several cases, established microentrepreneurs diversified into additional or alternative businesses to manage the risks associated with seasonality, severe weather, and change in business practices in response to downward economic pressures. One client, who depended entirely on livestock for income, used her loan to diversify into a new enterprise activity to protect against the possibility of an epidemic. This activity also helped to smooth income during the waiting period before the livestock could be sold. A client who raises fish experienced a loss when her stock of fish was swept away during a heavy rainstorm. In response, she used her loan to diversify into a less-risky, buy-and-sell enterprise. One client who buys and sells commodities used her loan to purchase stock during the season when the prices are low. Another client who runs a variety store and was experiencing low sales used her loan to diversify her line of products. Several CARD Bank clients invested their subsequent loans in the enterprises of other family members.

CARD Bank Clients Diversify Their Household Economic Portfolios

Glenda used her third loan to set up a barbershop for her husband who currently is employed as a barber. Lita's second loan will be invested in a boat for her husband. Felisa is financing her grandson's profitable *chicharon* business. Mila is funding her son's farming expenses. Liva bought a tricycle for her husband and son. The husband is a tenant and security guard and drives the tricycle during his free time.

In Uganda, one pattern was for clients to increase their levels of working capital in existing businesses with first and second loans, and then diversify into one or more small but new activities with latter loans. In Bangladesh, clients used their loans for working capital to expand existing trade or agricultural activities or to take advantage of opportunities to start a new business following the floods. The loans also were used to increase the labor supply of the client or other household member.

Pro Mujer clients in Bolivia commonly invest their loans to grow their businesses, and the most successful are able to reinvest at least a portion of their increased profits back into the business to sustain the growth. Clients whose incomes are lower or unstable and who need to use their business profits to cover household expenses are less able to sustain this growth. Clients who are able to reinvest business profits usually have several sources of household income and

therefore could consider their business profits as discretionary income to reinvest in the same enterprise or diversify into a new enterprise.

In a study in rural Gambia, microfinance clients use their loans to initiate a new economic activity, resume an old activity, provide liquidity to keep an activity going during times of need, or raise their working capital and activity level. Women typically use their loans to diversify into new economic activities (C.I.D.R. 1991). As shown earlier, diversification is an important economic goal among women, and access to loans enables them to achieve this goal more quickly.

b. Use of Microcredit to Build the Household Asset Base

(1) Physical Assets. Clients in the field study interviews described using their loans for investments in productive physical assets. Enterprise investments are common and often involve the purchase or repair of productive assets. In Bangladesh, clients used their loans to buy livestock, rickshaws, tools, and fishing nets. In Uganda, clients used loans to buy a weighing scale, a popcorn machine, a refrigerator to use in an existing restaurant business, a refrigerator to rent out, a new roof for business premises, and labor and materials to build rental housing. In the Philippines, clients used their loans for investing in livestock and other productive assets. Loans played an important role in reducing enterprise risks by helping clients vaccinate their animals, buy pumps to deal with flood waters, have cash on hand to pay suppliers, and shift into new lines of activity in response to business failure or market downturns. They also are used to build physical assets that can be pawned, a common coping strategy in the Philippines. In Bolivia, clients used their loans to reconfigure residential space for their businesses; to obtain labor and materials for new home construction; and to purchase fixed-enterprise assets, such as a knitting machine or shelving for a store.

Another common physical asset investment is for housing repairs and improvements. Acquiring and retaining housing is a primary goal of households everywhere, and microcredit is commonly used in pursuit of this goal. In the Philippines, Uganda, and Bolivia, where clients often use their houses both to live in and work in, the use of loans for housing repairs and improvements is common. Some CARD Bank clients reported using their loans to rebuild and reinforce their homes following the typhoon. Clients also reported investing their loans in a range of other physical assets including appliances, furniture, and other consumer durables. In the Philippines, one client used her loan to buy a karaoke machine to keep her growing children occupied at home and off the streets so they would not be exposed to drugs and crime. She considered this purchase important for maintaining the well-being of her children, as well as the reputation of the family (a form of social asset retention). Another CARD Bank client used her loan to purchase furniture for her house, in part to demonstrate improved economic status resulting from her new income. This purchase allowed her to invite people to the house and reciprocate hospitality within the community, which was important in building and maintaining social assets. One Bolivian client used her loan to buy shelving for her new home-based store. She wanted to work closer to her children who were in their final years of high school. The field research further found that a repeated strategy of acquiring land or building a house is to invest part or all of a loan in a certain income-generating activity earmarked for this purpose.

(2) Human Assets. A large number of clients participating in the WDR interviews across countries and programs mentioned the growing pressure of education expenses; they used part of their loans for this purpose. Because education is an anticipated human asset investment, people often fund it out of their regular cash flow or out of the income from a particular business. In some cases, however, they use loans to make lump-sum payments that otherwise would require installment payments. In Uganda, clients said that their children were not treated well by teachers and school officials if they were late in fee payments, or if the clients made the payments in installments rather that in a lump sum at the start of a term. Being able to pay on time afforded their children a better education. In some cases, economic reform policies and the general decline in public education expenditures have resulted in unexpected increases in educational expenses. Clients use a range of innovative strategies to cover these added costs. A woman in Uganda started a chicken business and scheduled her major sell-off of birds around the peak demand periods of Christmas and Easter. The lump sum of earnings coincided with the timing of school fee payments, and she used her chicken income for those payments. Access to credit and use of credit for maintaining and enhancing human assets can be highly productive and has the potential for affecting all linkages among production, investment, and consumption (Zeller et al. 1997).

(3) Financial and Social Assets. Clients also mentioned using loans to build a combination of financial and social assets. In the Philippines, for example, loans indirectly helped clients join rotating savings and credit associations (ROSCAs), because their membership in CARD Bank improved their credit rating with other ROSCA group members. One client in Uganda used her loan to lend to her brother, thereby maintaining an important family relationship and social asset. Many clients, especially poorer clients with fewer sources of household income, put aside part of their loans in the form of cash savings. Saved cash provides an important cushion for poor households; when they use loans for starting a new enterprise, these savings often are used to pay early loan installments before the enterprise is up and running. It is not uncommon for clients to use a portion of their loans to lend to a relative, to contribute to funeral expenses for a relative, or to finance other social obligations. This use of credit is seen as consumption by some, but it actually contributes to the process of building social assets that can be (and are) drawn upon by clients in the event of a shock or economic stress event.

(4) Protecting or Maintaining Assets. Some clients also reported using their microcredit to protect or maintain their assets. This use included loans for investing in vaccinations to protect livestock, repairing houses to protect against inclement weather or pests, and acquiring title deeds to maintain access to and control over housing. Clients also use loans to make gifts or informal loans to relatives to maintain relationships of trust and reciprocal support (social assets), to pay taxes to retain land and other property, and for preventative health care to ensure that family members do not get sick.

Another example of how loans are used to maintain an existing asset base is from the Philippines. The downward pressures of the Asian economic crisis has led to a shift in business practices whereby suppliers now require cash payments instead of accepting down payments or consignment purchases. CARD Bank clients have used their loans to make these cash payments, thus allowing for the survival of the business.

c. The Role of Microcredit in Money Management

Microcredit constitutes a lump of money that is managed as part of a given household's portfolio of resources. Findings from the field studies and literature show how microcredit fits into client money management strategies to reduce vulnerability.

In Uganda, clients discussed how UWFT loans improved their credit worthiness and opened up access to new sources of informal credit such as ROSCAs and private moneylenders. It also made some clients more creditworthy in the eyes of their friends and relatives who often are the first to be approached in times of need. In Bangladesh, some clients used loans from friends and relatives to pay off their existing BRAC debt so they could access a new BRAC loan. Other clients used their BRAC loans to redeem mortgaged land. In some cases, program loans substitute for more expensive informal sources of credit (Diagne 1997).

In the Philippines, one client used her CARD Bank loan to manage cash flow to meet daily consumption following a crisis. Another client used it to support the loss of income when her spouse died. A third client used a CARD Bank loan to meet household expenses following her husband's loss of employment. CARD Bank clients often use the multipurpose loans to manage their cash flow more effectively. These loans provide a sense of security by serving as a "stand-by credit" that can be used for contingent needs, especially educational expenditures. The loans also are used for medical emergencies requiring hospitalization, outpatient treatment, or purchase of medicines; typically, they are used more for moderate and serious illnesses than for everyday ailments.

In Bolivia, very poor Pro Mujer clients have few alternatives for managing the persistent upswings and downswings of life. Because they have fewer sources of income and other resources to draw on when hit by shocks or economic stress events, they often decapitalize their businesses to survive. Their lives are characterized by a jagged pattern of decapitalizing and recapitalizing their businesses with few discretionary profits. Repaying their loans, however, is always a priority so they can maintain this important discretionary 'chunk' of money. The loan funds are used variously for smoothing consumption and for re-capitalizing businesses.

Clients in Uganda and Bolivia discussed how the need to make weekly loan repayments forced them to improve their business planning and household budgeting and financial management skills.

As mentioned earlier, clients sometimes use microcredit directly to smooth consumption; for example, they use loans to pay for daily expenses or unexpected needs. But generally only a portion of the loan is used in this manner and such use normally precludes the use of a more negative strategy. In many cases, credit used for consumption serves as a temporary substitute for another source of income (or expected income) within the household portfolio that is freed up for a more useful purpose. In most cases, especially when multiple sources of income exist within the household or when other resources are available to draw upon, this loan use does not endanger the client's capacity to repay.

An idea put forth by several authors is that *access* to loans is more important than the actual *use* of loans in household money and asset management strategies (Eswaran and Kotwal 1990 and Deaton 1991 as cited in Diagne 1997). The argument is that access to loans and liquid savings, as a form of insurance for future contingencies allows people to do away with low-risk but inefficient income diversification strategies. It encourages poorer households to invest existing resources in new and potentially more risky but higher-return enterprises and asset portfolios. Unused credit limits can increase the capacity of households to absorb risks and pool risks across periods. It also can induce changes in the household's composition of assets. It can decrease the need for households to hold assets such as cash, jewelry, staple food, and livestock, all of which have lower risk-adjusted returns and are exposed to risks such as theft, inflation, loss, or disease. Access to loans also may decrease the level of other assets held for precautionary savings. This form of 'insurance' may increase investments in and allocation of human and physical capital to current and future income generation. Finally, easy access to loans may decrease emergency sales of productive assets at low prices (Zeller et al. 1997; Diagne 1997).

Diagne's microfinance impact research study in Malawi focused on these issues, but it did not find that unused credit limits induce changes in the willingness of poor households to invest in higher-risk activities or to shift the composition of assets (Diagne 1997). More research on this topic would be useful.

Nonetheless, it is quite clear from the WDR field research that maintaining liquidity through access to microcredit and other forms of credit is critically important for households, and staying in programs (by repaying on time) is part and parcel of a client's day-to-day money management strategies. In times of crisis, access to credit is important in keeping alive economic activities that might not otherwise survive. Clients go to great lengths to stay in programs and make loan repayments, even in times of crisis. Clients highly value access to microcredit and strive to stay in programs. Loans are clearly integral to their management of risk.

d. Patterns of Loan Use

Studies show that across countries—in Bangladesh, Kenya, Uganda, South Africa, Egypt, Thailand, and Sri Lanka—the predominant use of microcredit is for productive investments in microenterprises. The studies show that clients at all poverty levels use the bulk of their loan funds for this purpose. Non-poor clients are in a position to take more risk in their business investments and make larger investments. But poorer clients also take significant risks in their businesses as reflected in the variable rates of return on their investments (Chua 1999; Zaman 1999). Studies further confirm that many clients also use a portion of their loans for other purposes, such as asset purchases, housing construction and repairs, consumption, paying bribes for not having proper licenses, home investments, gifts to friends and relatives, and investments in other people's enterprises (Rahman 1999; Osmani 1998; Bousso et al. 1997; Husain 1997; MkNelly and Watetip 1993; Montgomery, Bhattacharya, and Hulme 1996; Neill et al. 1994; Sebstad and Loza 1993; Sebstad 1992; Sebstad and Walsh 1991).

In Cambodia, Bousso et al. (1997) found that poorer village bank members are more likely to use their credit for everyday expenses, while less-poor members use it for fertilizer. All groups equally invest in piglets. Credit for investment usually is used to support an existing

activity or to complete the finance of a higher-risk startup activity. The study found that program credit was used for a total of 1,590 different purposes, while informal credit was used for 282 different purposes—a striking example of how program credit can increase options for borrowers.

In looking across the field studies, clients often use their full loan amounts for one purpose, although it is not uncommon for them to split their loans and use them for more than one purpose. Poorer clients often keep a portion of the loan funds in the form of cash savings in case they need it to cover a loan installment. Barnes, Morris, and Gaile (1998) found savings to be the second most frequent use of loan funds by clients in three programs in Uganda. Almagir (1997) found that BURO-Tangail clients in Bangladesh use their loans for multiple purposes, but most people invest at least a portion in income-generating activities. MkNelly and Watetip's (1993) study in Thailand found that more than 90 percent of microcredit clients studied used a portion of their loan funds in their enterprise but that a majority also used a portion of funds for family and medical expenses. A study of Grameen Bank clients found that 30 percent of the clients studied used a portion of their loans to meet expenses such as dowry costs, medicine bills, or fees to broker agencies to arrange for overseas employment for a household member (Rahman 1999). More information on the circumstances under which clients split loans (especially whether it is a demand-driven or supply-driven pattern) could help improve the design of loan products.

Some clients, especially better-off clients with a more steady flow of income or more resources, patch the loan funds together with other loans, savings, or resources to create a larger chunk of money to make larger investments—usually investments in land or housing, or other productive investments such as a refrigerator or a car. In Gambia, one study found patching to be very common, primarily because loan sizes were so small. In the Philippines, Hossain and Diaz (1997) found that older clients contributed more from their own sources to loan-financed investments than did newer clients. Again, more information on who does this, why, and whether they might be candidates for larger loans would be useful for improving the design of loan products.

This pattern of splitting loans and patching loans with other sources of funds raises the general question of the relationship between loan size and loan use. A study in Sri Lanka found that smaller loans are used less often to purchase assets and are used more often for working capital (Montgomery, Bhattacharya, and Hulme 1996). The WDR studies suggest that many clients 'make do' with what is available because their choices in accessing formal financial services are so severely limited. Just as loan size is no indicator of the poverty level of the client, in monopoly markets loan size probably correlates poorly with appropriate loan use. More information on how the timing and size of loans in competitive markets affect their role in helping to reduce vulnerability could be used to improve loan products.

e. Temporal Issues in Loan Use

First and second loans often are used in whole or part to expand working or fixed capital in existing or familiar business activities. This loan use was common among clients in the Philippines, Uganda, and Bolivia WDR studies and is commonly reported in the literature (C.I.D.R. 1991 for Gambia; Neill et al. 1994 for Kenya). The Philippines findings show that

clients invest their first loans in low-risk, small-capital activities because loan sizes are small and because clients generally are more vulnerable at this stage and are under close scrutiny by CARD Bank during this 'trial' period. Women who do not already have businesses often tend to use their loans in familiar activities connected to their husbands. In Uganda, a similar pattern of 'initial caution' for first loans was a way for clients to test the suitability of the UWFT methodology for their needs and to establish the level of returns the loans could achieve in a familiar business environment.

The Bangladesh study suggests that BRAC clients use their initial loans for consumption, repaying debts, repairing homesteads, and improving housing. Subsequent loans are used for investment in productive assets. The study argues that impacts on income poverty are related to this pattern of loan use—whereby increases in income are driven by investments in productive assets (Zaman 1998).

Clients often use later loans to diversify into a new activity—in some cases because clients have tapped out (maximized or optimized) the potential for expanding existing enterprises. In diversifying, poorer clients often tend to stick to low-risk activities, while better-off clients may opt for higher-risk, higher-return activities. In some cases, this latter pattern exists because clients' loans are larger. In the Philippines, several clients moved into more expensive product lines with higher returns but longer gestation periods. One client used a later loan to integrate forward and backward enterprise linkages in her business. She moved from ornamental plant growing to ornamental plant trading.

In most cases, later loans are larger than earlier ones; but clients do not always have opportunities for larger investments or may not be willing to take on the risk of larger investments. In Uganda, for example, some clients actually requested smaller loans in their later cycles, recognizing limitations in their investment opportunities and needs. In other cases, larger, later loans are split across multiple purposes. One UWFT client used her first two loans to increase the working capital in her firewood business. She used the third loan to expand to a second selling point. She divided her fourth loan between the purchase of a refrigerator that she rents out and a loan to her brother, for which he pays weekly interest. She uses the refrigerator rental income and her brother's interest payments to repay the loan. In Kenya, a study of more than 100 Kenya Rural Enterprise Programme (K-REP) borrowers shows that clients generally use their first loans for working capital to expand existing businesses. They use second loans for a wider array of purposes: 70 percent of clients use them to purchase more stock or supplies, 21 percent to make or sell a new product, 4 percent to change location, and 6 percent to improve infrastructure. A quarter of all clients also used a portion of their second loans for non-business expenditures such as school fees, land purchases, other household expenses, or savings to use to meet loan repayments in emergencies (Neill et al. 1994).

When loans and loan repayments get bigger over time, and clients use them to branch out into new and more risky activities, they can add pressure and new risks to households. When these households are hit by a shock or economic stress event, they may find it difficult to repay their loans and fall into a downward spiral. In some cases, they are forced to drop out of the program (when they withdraw their forced savings, or when they are pressured out by other group members who are reluctant to continue to guarantee their loan repayments). In one

example of a downward spiral, a Pro Mujer client who had been in the program for some time took a larger loan to finance her cosmetics business. This loan increased the level of household indebtedness at the same time that her husband got sick and lost his salaried job. The household had depended on the husband's income to cover household expenses and to meet loan repayments. The loan funds were diverted to cover household expenses, and the woman was unable to meet her Pro Mujer loan repayments. The program enabled her to draw down from the internal group account against her forced savings, thus enabling her to repay her loan and stay in the program. She subsequently borrowed at her entry-level loan size and used the funds to recapitalize her business.

f. Gender Differences in Loan Use

In terms of gender differences in loan use, a study of CVECA in Mali showed that women take fewer and smaller loans. In general, they prefer borrowing from husbands and relatives or participating in a ROSCA over taking village bank loans (Ouattara et al. 1997). Kabeer (1998) reports that in Bangladesh women borrowers, once their survival needs are met, tend to value security-related investments. Men are more likely to reinvest in their businesses.

A microenterprise study in Egypt found that women were more likely than men to use their loans to start a new business because they did not have an existing business. The range of enterprise activities they invested in were much narrower than those of men, however, suggesting gender-defined barriers to entry and the tendency for women to stick to lower-risk, familiar, and more socially accepted activities (Sebstad and Loza 1993).

An impact study of CARD Bank clients in the Philippines found that women invest their first loans in existing enterprises so that they do not add to their labor time. Women are reluctant to start additional businesses because of the extra labor time required. The study further found that women reduce risks by investing in existing or startup businesses in or near their homes and operate within their immediate communities. Part of the risk they reduce is friction with their husbands, which can be created when women spend less time (and men spend more time) in child care or other non-market production. In some cases, women invest their early loans in their husbands' economic activities, which reduces the risk of interhousehold friction that can be created when a woman reallocates time to a new business. From a practical standpoint, such an investment reduces vulnerability by preserving or stabilizing interhousehold relations. From another angle, the study argues, it exposes women to the same enterprise risks as their husbands, which may increase their vulnerability. Over time, some women branch out to invest in a new enterprise. The initial interhousehold friction associated with starting a new enterprise tends to subside once a women brings additional income into the household (Miron as cited in Chua et al. 1999).

g. Women's Role in Decision-Making about Loan Use and Management

Women's role in decisions regarding the use and management of loans is a topic that has received much attention in recent years and is related closely to the issue of women's vulnerability. The debate surrounding this topic has emerged largely from research on the impact of microcredit on women's empowerment in Bangladesh. Kabeer's (1998) analysis from

Bangladesh finds that the research generates conflicting findings on women's empowerment. Negative evaluations tend to focus on the process of loan use and management (the topic of this section) and the positive evaluations tend to focus on outcomes associated with loans and attributable to loans (the topic of the next section).

The studies that find negative impacts on women's empowerment argue that credit fails to alter, and sometimes reinforces, women's subordinate position because loans are surrendered to husbands or are appropriated by them. Male appropriation of women's loans results in little change for women in managing income, and women may deplete subsistence resources and reduce consumption to repay loans when their husbands are unable to repay. This process is seen to increase women's workload without benefits and, potentially, intensify conflict and violence against women. Husbands pressure women to take loans and retaliate when asked for repayment. The studies argue that male control of loans may strengthen their dominance within the household (Goetz and Sen Gupta 1996; Montgomery, Bhattacharya, and Hulme 1996; Ackerly 1995 as cited in Kabeer 1998).

The studies that find positive impacts on women's empowerment show that loans have positive outcomes on many empowerment variables, whether or not women control them.[25] These changes are more marked, however, when women use at least a portion of their loans to enhance their own contributions to the household economy, rather than surrendering the entire loan amounts to male relatives (Rahman 1999; Pitt and Khandker 1998; Hashemi et al. 1996; Kabeer 1998).

Kabeer calls into question the negative conclusions because of their 'speculative interpretation' and the tendency for impacts to be 'read off' their theoretical frameworks rather than to emerge from concrete evidence. Zaman (1999) further questions the validity of the negative findings, in part because of small sample sizes and problems with the interpretation of the data. He argues that it is more appropriate to focus on changes to the overall status of women than focus on their role in loan use, because those decisions are likely to be shared by the borrower, her family members, and sometimes the program (Zaman 1999). Hashemi et al. (1996) find that while women who control their loans have the most chance of being empowered, even women who surrender all of their loans to their husbands are more empowered than non-members.

What emerges from this argument is that women may not always have full control over decisions about the use of their loans, but this is not necessarily a negative factor. Accepting joint decision-making may be a more practical approach than a strategic one because it reduces friction within households.[26] Most women do seek to use some part of the loans themselves, but sharing loans with husbands or sons in joint activities does not always carry connotations of loss of control. Kabeer argues that women do not attach the same degree of importance to

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[25] These studies show positive impacts on the standard of living of women and their families, investments in health and children's education, reduced levels of male violence within families, women's economic contributions to their families, women's decision-making power, and women's level of political awareness and participation.

[26] Moser (1993) distinguishes between practical approaches that promote women's participation within the context of existing structures and strategic approaches that work to change the structural basis of women's subordination.

individualized forms of control over resources. She encourages a more client-centered focus that recognizes the interdependency within the family and women's reliance on men to realize the full value of their loans. While the power relationship between men and women may be asymmetrical, what matters to women is not necessarily having full control over the loan, but participating in decisions about how loans and the income generated by loans is used. Women value this participation, whether jointly or individually.

The WDR field studies show that in many cases, women do have full control over their loans. In other cases, their influence over loan decisions is from a bargaining position within their households, as opposed to full control. In the context of a household in which joint decisions are the norm, shared decision-making reduces friction and associated problems that may actually increase women's vulnerability. Over time, women's increased contributions to household income affords them more status and decision-making control within their households.

The loan use interviews in Uganda found that most women took complete responsibility for decisions regarding their loans. In some cases they consult with their spouses about whether to join the program or how to use their loans, but most women make the actual decision themselves. The research found little evidence of conflict around the use or control of the loan. In the Philippines, several case studies reflect the evolution of a 'bargaining' relationship regarding loan use over time. Women generally make joint decisions with their husbands on how to use their first loans to reduce friction but take more control with later loans, particularly after they start contributing income to their households. Joint decisions can help reduce tensions over loan repayment when general household resources are needed to repay loans. In Bolivia, many Pro Mujer women make their own decisions regarding their loans when they first join. With time and the growth in loan size, they invest with their husbands in jointly owned and often larger assets, such as housing or the purchase of a taxi to be driven by the husband. In these instances decision-making is shared.

The AIMS study of Zambuko clients in Zimbabwe found that decision-making about applying for loans varies among clients. About half the married female clients made the decision alone, one-third consulted with their spouse or another household member, and the rest decided jointly with their spouse or were influenced by individuals outside of their household. Nearly all unmarried clients decided for themselves. With later loans, more women make this decision alone (Barnes and Keogh 1999).

2. Savings Use

Information on the use of program savings was limited in the WDR field studies, mostly because few clients actually had voluntary savings and their use of non-voluntary savings (which typically serve as collateral) is restricted.

The Uganda field study found that UWFT's savings services play a limited role because of their design. Apart from a few affluent clients, most do not have individual accounts with UWFT. Most of UWFT's savings are compulsory savings that back up the loans (clients are required to have 30 percent of the value of their loan in their UWFT account). Three signatures

are required to withdraw these funds. Some clients use compulsory savings as a way to protect savings earmarked for special longer-term projects and to keep it out of reach of opportunistic relatives or for minor short-term needs. Out of desperation, one client used her savings to pay school fees that enabled her son to sit for his exams. If these funds had not been available, he would have had to wait another year to take the exam. According to his mother, "now that could have been a real household crisis."

Several UWFT clients said they were reluctant to use the UWFT voluntary savings facilities because they were afraid they would be confiscated if they or another group member fell behind in their loan repayments. Their preference was to save through other formal and informal systems.

In the Philippines, only a few clients in the study had voluntary savings accounts with CARD Bank. One reason is the expectations placed on "better off" clients by friends, neighbors, and relatives. One client said she wanted to open a voluntary savings account with CARD Bank during one center meeting but ended up lending money to those who could not meet their weekly repayments. The few Philippines respondents who talked about their savings said they used them for emergencies, house improvement, consumption during a slowdown in the business, the wedding of a daughter, and payments to the owner of the land on which their houses are standing. In the Philippines, many clients prefer to save in the form of physical assets, such as livestock (pigs, horses, cattle) and household things (appliances, kitchenware, house improvements). They are wary of opening a savings account, even with CARD Bank, for fear that its highly liquid character would induce them to withdraw savings and use them for needless purposes.

Regarding the use of savings in direct response to a crisis, BRAC clients welcomed access to their program savings in the period immediately following the Bangladesh floods. Recourse to the use of their savings, however, was less than expected. One reason is that clients would need to redeposit the money before they would be eligible for an equivalent size BRAC loan (loans are tied to the amount of savings a member has). Another reason, as previously mentioned, was the inaccessibility of the branches. After the floods receded, savings withdrawals doubled, but they still were much less than expected. BURO-Tangail and Safe Save also experienced this somewhat surprising pattern. Clients were more likely to borrow from friends and relatives than use their savings.

In Bolivia, recourse to the internal group savings account helped one Pro Mujer client following a theft. The borrowed money acted as insurance and was paid back in two months.

Two recent studies on the use and impact of savings in Tanzania and Kenya found that people are active savers in a wide range of formal and in formal institutions (Mutesasira 1999; Mugwanga 1999). They use savings for a variety of purposes including daily expenditures, consumption smoothing, accumulation to fit life cycle needs, and emergencies. People often save in the high season, and withdraw their savings in the low season to pay for food, medical care, and school expenses. People also use savings to purchase plots, buy construction materials, and pay for weddings. It is common for people to save for future large expenditures such as television sets, refrigerators, and funerals, or for expanding investments.

Despite this overall active pattern of saving, the Tanzania study found limited use of MFIs for saving, especially among the poor. One reason for the limited use hinges on the requirement of many MFIs that clients have businesses; this requirement excludes many poor people from their savings facilities. Another reason is that, by law, MFIs cannot accept savings deposits except for collateral (compulsory savings). The savings can only be withdrawn when the person leaves the program. A third reason is that MFI group selection procedures tend to exclude many poor individuals (Mutesasira 1999).

The Kenya study found similar constraints to the direct use of MFIs for voluntary saving. Nevertheless, clients sometimes save more than the mandatory amounts required by programs, even though the procedures for withdrawing them are cumbersome and drawn out. The study found several interesting ways that MFIs promote savings that reduce risk and vulnerability. For example, some MFIs require groups to form merry-go-rounds, or rotating savings and credit associations (ROSCAs). Others encourage group members to open individual accounts in outside banks to process their loan checks. Some programs reduce the risk of a loan by setting a portion of the loan balance against the client's compulsory savings when they experience repayment problems. Lowering the loan balance helps reduce the risk of default for both the clients and the program (Mugwanga 1999).

3. Credit Group Participation

Participation in credit groups reduces vulnerability largely by building human and social assets. In terms of the 'pathways' through which this happens, the Philippines field study found that participation in groups helps women develop inner strength, overcome fear, and take more control. Members teach each other new business skills, how to manage money better, and the meaning of entrepreneurship. They share market information and develop more self-discipline, perseverance, and a wider perspective on life. The groups help build social assets by teaching members how to work together and develop group organizational skills. Through the groups, women make new friends and build relationships of trust. Some members help others by lending them money when they need it.

In Uganda, the study found that weekly group meetings provide a vital web of personal and business relationships that help women cope with the challenges of life. They provide a forum for other self-help and mutual insurance activities; for example, women use their groups to run ROSCAs on the side. Women mentioned that they learn from each other on topics such as expenditure management, the importance of savings, planning, and innovation. The groups provide a means for women to know and be known by other women; a forum for learning leadership and public speaking skills; and a basis for developing trust, friendship, and financial assistance. Group members contribute to each other's weddings and funerals, patronize each other's businesses, and exchange business information and favors. They offer women status in their communities.

A study in Bangladesh (Navad 1994) found that participation in groups enabled women members to address social problems as a joint unit. The study cites several examples of the use of group pressure to resolve family disputes.

The social networks created through MFI program participation are rarely static. Social capital can grow and consolidate over time or it can decline. For example, older and well-established Pro Mujer clients in Bolivia pointed out that their groups now exist primarily as a financial convenience. In other cases, social assets may be damaged or depleted by enforcement of payment obligations, especially as loan sizes increase over time, which can adversely affect the social fabric that makes the self-enforcement aspect of group credit schemes possible (van Bastelaer 1999). As mentioned earlier, the Philippines research found some cases in which groups had been quite severe in demanding that other members repay their loans.

In some cases, credit groups offer new friendships and contacts outside existing class hierarchies that are particularly important for poorer clients (Kabeer 1998). In urban areas, where fewer pre-existing social assets exist for credit groups to build on, the groups build new relationships of trust among members that become important to members in light of the lack of alternatives (Copestake et al. 1998). For the most part, however, the field studies suggest that credit groups are relatively horizontal in terms of the socioeconomic status of members. In the Philippines, the study found that risk is minimized at the start by ensuring that group members have the same socioeconomic background. Having the same socioeconomic background reduces the tendency for better-off members to dominate the group or for poorer members to depend on better-off members for their repayments.

The WDR field study in Uganda found that pre-existing social assets were a criterion for membership in some groups. The study found that women who are considered risky, such as widows, poor women, and women whose lives are in crisis, normally are not invited by the other women to join UWFT groups. While groups build social assets in several ways, social assets also are used as part of an informal 'means test' in the group-selection process. In some cases, members cash in their social assets to remain part of a group (for example, when they borrow from friends, relatives, or other group members to make loan repayments).

4. Summary Points on the Use of Financial Services to Manage Risk

The study finds that MFI loans are used to reduce vulnerability primarily through investments to stabilize, smooth, or raise incomes and through investments in assets that can be drawn upon in times of need, including investments in human and social assets. MFI loans (or portions of loans) may be used to smooth consumption following a shock or economic stress event, but they are used less often than might be expected given the range of downward pressures that clients experience. It is possible, however, that clients who have been forced to use their loans for consumption in the absence of other income flows have dropped out of programs. If the timing is right, loans also can play a role in helping clients rebuild their base of income and assets or smooth consumption following a shock or economic stress event. MFI loans are an important part of household money management strategies, and clients go to great lengths to repay loans and stay in programs, even when they experience a crisis.

Savings can reduce vulnerability by providing a safe place for keeping funds and for accessing a quick source of cash when it is needed. Savings are especially important for very poor people and households that may not be in a position to bear the risk of a loan. Despite the

fact that MFI clients are active savers, the study found that clients use informal savings more than MFI savings. A shortcoming of many credit-led programs is that they have not developed good voluntary savings programs or appropriate savings products with outreach to the extreme poor. In many cases, MFI savings are compulsory, serve as a form of collateral for loans, and can be withdrawn only when clients leave the program. Savings-led financial institutions may be successful in mobilizing resources, but little is known about their effectiveness in offering appropriate savings products for both borrowers and non-borrowers at different poverty levels. It would be useful to systematically review the experience of such institutions (for example, the SEWA Bank) that offer savings services with or without credit to poor households.

Participation in credit groups helps reduce vulnerability primarily by building up human assets in the form of increased self-confidence and self-esteem, social and leadership skills, new business and money management skills, and a wider world view. Participation further reduces vulnerability by building social assets such as new friendships and relationships of trust, wider networks to draw on for moral support, financial support, and information in times of need. Groups often use weekly meetings for other purposes, such as ROSCAs, training sessions, information sharing, and other mutual support activities.

B. Findings on the Impact of Financial Services on Reduced Vulnerability

This section of the study reviews findings from previous studies on the impact of microfinance on selected indicators related to vulnerability.[27] Where possible, the study draws upon qualitative findings from the field studies to elaborate or illustrate the processes through which impacts may occur.[28]

The findings across studies generally support the proposition that microfinance reduces vulnerability by helping clients protect against risks ahead of time and cope with shocks and economic stress events after they occur.

1. Pathways Through Which Microfinance Services Reduce Vulnerability

Three main pathways through which microfinance services reduce vulnerability include

- smoothing income;
- building assets (including financial, physical, human, and social assets); and
- empowering women.

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[27] 'Impact' is defined as change that can be plausibly associated with microfinance interventions. The studies drawn upon were screened for their credibility in terms of establishing a plausible relationship between change and microfinance interventions.

[28] This section draws partially on the 1996 AIMS report, "Overview of Studies on the Impact of Microenterprise Credit," by Jennefer Sebstad and Gregory Chen.

a. Impacts of Microfinance on Smoothing Income

Evidence from previous impact studies suggests that one way microcredit reduces vulnerability is by increasing the sources of household income and labor supply. This, in turn, enables households to smooth income and consumption.

The findings from several impact studies show increases in the sources of household income. In India, Mosley (1996a) found more diversified sources of income among poor borrowers who had increased their household incomes. An impact study in Thailand shows that credit contributes to an increased variety of secondary occupations and the diversification of goods and services sold within enterprises (MkNelly and Watetip 1993). A pilot study in Honduras found that more clients than non-clients had started a new economic activity in the past year (Edgcomb and Garber 1998). In rural Gambia, where diversification is a major goal of households, credit makes it possible to achieve this more quickly and strengthens women's autonomy in the process (C.I.D.R. 1991). By contrast, a study in Cambodia shows that credit may smooth income by putting activities on a more stable footing, rather than help them grow (Bousso et al. 1997).

A number of impact studies find positive impacts on household labor supply, especially for women. The 1992 World Bank data on three programs in Bangladesh shows that microcredit has an impact on increasing labor supply for women, but not for men (Pitt and Khandker 1995). A similar pattern was found among CARD Bank clients in the Philippines (Hossain and Diaz 1997). A study of BURO-Tangail clients in Bangladesh finds that credit has a positive impact on increasing women's contribution to family income, the basis for other important aspects of empowerment (Almagir 1997). In Vengroff and Creevey's study of microfinance impacts in Senegal (1994), women participants reported spending more time on work than before, while women in the control group reported no change. A study in Ecuador shows that women borrowers reduce the amount of time they spend in their activity, although their labor productivity increases (Buvinic, Berger, and Jaramillo 1989). Men increase the number of hours worked in their businesses. The Honduras study found a similar pattern (Edgcomb and Garber 1998).

In response to the concern that credit may increase child labor supply and interfere with their education, Peace and Hulme (1994) carried out an exploratory study of the impacts of micro enterprise programs on child welfare. Their review of materials from more than 70 NGO supported projects found contradictory evidence. The materials from some programs suggest improvements in school enrollment, nutrition, and childcare, and others cite increased demand for child labor without children accruing benefits. They caution, however, that there is not yet sufficient empirical evidence to draw any conclusions on impacts on child welfare. A study in Honduras looked at the impacts of microcredit on child labor, but found no evidence of children being taken out of school to help their parents in business (Edgcomb and Garber 1998). A study of WEDP clients in Bangladesh found that as family incomes increased, parents withdrew their children from the family enterprise and enrolled them in school. Half of non-family workers hired by clients during the loan period, however, were children.

b. Impacts of Microfinance on Building Assets

Findings from a growing number of impact studies support the proposition that microcredit reduces vulnerability by building a strong and diversified base of household assets. The literature contains little concrete evidence of asset depletion as a result of microfinance among clients, although this may be because most studies have not looked at the experience of clients who drop out of programs. Several studies refer to the possibility that some clients, especially clients from poor households, may sell assets to repay their loans but empirical evidence to support this was lacking.[29]

(1) Financial Assets. In considering the role of savings in reducing vulnerability, it is perhaps useful to refer to Zeller et al. (1997) who see that precautionary savings are determined by greater prudence or by greater uncertainty about future consumption. For people faced with variations in labor or enterprise income or the likelihood of shocks, liquidity is more important than return. Up to a point, increased precautionary savings may be one of many indicators of reduced vulnerability. But beyond a certain point, as households build up their capacity to bear risk in other ways, decreased precautionary savings may indicate reduced vulnerability.

The findings from studies on the impact of microfinance programs on savings are surprisingly limited. The field studies and other work on savings suggest that clients do save in a variety of ways, but little information is available on the impact of microfinance programs on changes in the amounts, patterns, or forms of savings, and how these impacts vary by poverty level. Studies of Grameen Bank clients in Bangladesh, Get Ahead Foundation clients in South Africa, and *Organizacion de Desattollo Empresarial Femenino* (ODEF) clients in Honduras found an increase in the number of people who save regularly, but they did not measure the amount or pattern of change (Chen 1992; Churchill 1995; Edgcomb and Garber 1998). A study of BRAC found that savings by members, including mandatory member savings, were twice as high as savings for a control group (Husain 1997).

Clients of CVECA in Mali exhibit gender differences in savings behavior. Women save less than men both within and outside the program. The CVECA program has attracted savings previously held in informal groups. In general, however, it complements, but does not substitute for, informal savings mechanisms (Ouattara et al. 1997).

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[29] Zeller et al.'s (1997) framework for considering the impact of financial services on reduced vulnerability emphasizes the importance of building a strong base of assets. According to this framework, changes in the composition of assets will improve a household's capacity to bear risks while increasing its capacity to generate income. Changes might include, for example, (1) decreasing lower-risk assets, including cash, jewelry, staple food, and livestock in favor of more productive assets; (2) replacing liquid monetary savings with liquid but nonproductive assets that yield higher returns; (3) increasing investment of human and physical capital to current and future income generation; and (4) decreasing the sale of productive assets at low prices. Financial services also can have an impact in reducing the costs of other sources of credit. While examples of some of these changes are provided in the WDR field studies, further empirical evidence to support these propositions will be important for understanding more fully the role of financial services in reducing vulnerability.

More research on the impact of microfinance on increasing precautionary savings for poorer people and decreasing precautionary savings in favor of more productive investments as households build up their base of resources would be useful.

(2) Physical Assets. Two types of physical assets built by clients—productive assets and other household physical assets—are discussed below.

(a) Productive assets. Findings from a number of studies suggest that microcredit programs play an important role in increasing productive assets for client households. A review of ten microcredit impact studies that looked at changes in enterprise assets found a positive change in the value of fixed assets among borrower enterprises in seven places: Jamaica, Honduras, Dominican Republic, South Africa, Kenya, Bangladesh, and Indonesia (Gupta and Davalos 1993; Kilby and D'Zmura 1985; Churchill 1995; Buckley 1996a; Montgomery, Bhattacharya, and Hulme 1996; Sutoro 1990). Two studies, in Guinea and Sri Lanka, found no change, and one study, in Malawi, found mixed effects (Creevey, Ndour, and Thiam 1995; Hulme and Montgomery 1996; Buckley 1996b). Several studies pointed out that a significant proportion of borrowers (up to 30 percent) had no fixed assets at all. The most rigorous study of change in enterprise assets, from Indonesia, showed an increase in expenditure on assets in 24 of 29 subsectors in one program, and about half of all subsectors in another program (Nelson 1984). The first program had more prosperous clients and larger loans. Hossain and Diaz (1997) found in the Philippines that the value of livestock and accumulation of capital in machinery, tools, and equipment went up substantially with the number of loans. A study from Malawi showed one-quarter of client enterprises increased assets, one-half had no change, and one-quarter had no assets to begin with (Buckley 1996b). This general pattern of variation (and probably conditionality) in asset change was found in several other studies.

Impact research on BRAC members suggests that positive impacts on income poverty are driven by investments in productive assets. This process, however, is conditioned by cumulative loan size, which generally is associated with length of time in the program. Zaman (1998) found that income impacts occur for moderate poor households after a cumulative loan size of 10,000 *taka* and following investments of early loans in productive assets such as livestock or poultry. Montgomery, Battacharya, and Hulme's (1996) study of BRAC and Thana Resource Development and Employment Programme (TRDEP) clients found greater improvements in household income and a sharp growth in productive assets for third-time borrowers. They also found that successive loans lead to a buildup of assets over time and that the structure of assets shifts in favor of more productive assets. Mustafa et al. (1995) found that older members have asset values 112 percent higher and expenditures 26 percent greater than newer members. Another study found that as BRAC borrowers increase their non-land assets (such as rickshaws), they switch from traditional low-return, on-farm activities to higher-return, off-farm activities (Ravillion and Wodon 1996 as quoted in Zaman 1999).

A microfinance impact study from Kenya analyzed fixed and current assets separately (Buckley 1996a). It showed no growth in fixed assets but a significant change in current assets, although the sustainability of the change was questioned. This study further found that most borrowers operate with a high current-to-capital asset ratio to start with, in keeping with the nature of their retail business activities and reflecting shorter-term horizons. Investment in fixed

assets, less prevalent but still observed, suggests an increasing borrower commitment to the enterprise over time.

In their six-country study of the impacts of microfinance on poverty, Hulme and Mosley (1996) looked at productive assets in terms of technology change. They found technical innovation, in general, to be confined to a small group of borrowers within the group of borrowers who have taken multiple loans. Moreover, a positive correlation appears to exist between borrowers' initial income and the adoption of new technology (Hulme and Mosley 1996). One study from India found that all borrowers implementing technical change were men; another from Sri Lanka found that technical change was generally related to agricultural techniques (Mosley 1996a; Montgomery, Battacharya, and Hulme 1996). Hulme and Mosley conclude that impacts of credit on production and income are higher when credit is invested in new technology, although opportunities for such investment vary among sectors and increase risk—which is precisely what poor borrowers are hoping to avoid.

(b) Other household physical assets. Ten impact studies that include data on household asset accumulation find mostly positive change. Definitions of household assets varied. Some studies estimated the value of total household assets. Others looked at one or more specific assets, such as savings or infrastructure (for example, running water, electricity, indoor plumbing, or telephones). Three case studies included in Hulme and Mosley's six-country study found an increase in total household assets among borrowers. In the Bangladesh case study, for example, increases ranged from 6 to 12 percent, and the structure of assets changed in favor of productive assets, suggesting more secure income (Montgomery, Battacharya, and Hulme 1996). In Sri Lanka, 82 percent of all clients increased their household assets, related mostly to enhanced living standards, not necessarily increased economic output (Hulme and Montgomery 1996). In India, household assets increased for both women and men borrowers, but more so for men (Mosley 1996a).

The findings from Africa on changes in household assets are thinner and more mixed. A study from Guinea shows little impact on assets except for running water in homes. In comparison, a study from Senegal shows modest impact on household asset ownership, with more impact for women than for men (Creevey, Ndour, and Thiam 1995; Vengroff and Creevey 1996). Churchill's study from South Africa found that loans had more impact on the accumulation of household assets such as electricity, indoor plumbing, telephones, and vehicles, than on food expenditures, suggesting a shift from concern for immediate survival to longer-term household security (Churchill 1995).

While the case studies show that expenditure on housing is an important goal for households and that clients use credit and savings to invest in house building, improvements, or repairs, the literature review found only a few findings on impacts in this area. Almagir's study of BURO-Tangail clients found that half of current borrowers improved their housing from income realized through investment of their loans. Edgcomb and Garber (1998) found that more clients than non-clients made improvements to roofs, floors, and walls during the reference period. Hossain and Diaz (1997) found an increase in housing investments only among long-time borrowers with larger loans. In Zambia, borrowers were found to spend less on home improvements and were more likely to shift from their own houses to rented accommodation

compared to a control group of pipeline borrowers. This pattern suggests there may be a reallocation of household resources to business among some, although not all, borrowers, especially those who experience lower growth in business profitability (Copestake et al. 1998).

Little information on the impacts of microfinance on consumer durables is available. In Honduras, participatory exercises identified a refrigerator as an asset that indicates movement from one economic level to another, and more clients than non-clients bought one over the previous two-year period (Edgcomb and Garber 1998). But the Zambia study found ownership of consumer durables actually fell among borrowers (Copestake et. al 1998). The Zambia finding is one of the few pieces of evidence that might be interpreted to show that clients sell assets to repay loans, but it is speculative.

(3) Human Assets. Several previous microfinance impact studies consider the impact of credit on children's education, either by examining changes in expenditures on school fees, children's school enrollment, school attendance, or educational attainment. The findings are mixed. One study from Indonesia shows that credit contributes to increased expenditure on education; another from Kenya shows that program borrowers are more likely than those in a control group to spend a portion of their enterprise profits for school fees (Sutoro 1990; Buckley 1996a). A study of BURO-Tangail clients in Bangladesh shows increased expenditures on education (Almagir 1997). A study in Honduras found that most children in the country already are enrolled in school, so limited scope exists for credit to have a positive impact on enrollment (Edgcomb and Garber 1998). But the findings from other studies are less positive. Pitt and Khandkar's Bangladesh study (1995 and 1998) shows that, overall, credit has an impact on boys' schooling but not on girls'. Their data from Grameen Bank, however, shows that credit to women has a statistically significant effect on the schooling of girls (Pitt and Khandker 1995 and 1998). Similarly, a cross-regional study and a study in Guinea found no evidence to support the hypothesis that credit has a positive impact on children's education (Peace and Hulme 1994; Creevey, Ndour, and Thiam 1995). The authors of the Guinea paper suggest that the program in Guinea may have been too young to contribute to impacts in this area.

Health and nutrition are not primary objectives of most microfinance credit programs, and the chain of causality is difficult to establish. Three studies, however, considered impacts in health and nutrition. The findings do not show strong or direct impacts in this area, at least in the short run. Pitt and Khandker's study of data from Bangladesh showed no impact on the anthropometrical status of children (Pitt and Khandker 1995). The Guinea study indicated that clients perceived an improvement in their family diets, but actual improvements were not measured (Creevey, Ndour, and Thiam 1995). The most systematic treatment of health and nutrition questions—MkNelly and Watetip's study of an integrated credit and nutrition education project in Thailand—found positive impacts on health and nutrition knowledge and practice, but no evidence of change in children's nutritional status. There were positive impacts on several indirect indicators of impact, however, such as better dietary quality for preschoolers, increased expenditures on food, and increased investment in crops with nutritional benefits. Evidence was lacking on the extent to which credit enhanced the impacts of the nutrition education.

(4) Social Assets. Few impact studies to date have considered the impact of microfinance programs in building social assets, although these assets were found to play an

important role in dealing with shocks and economic stress events in the field studies. Kabeer's study in Bangladesh (1998) found changes in the position of women within class-based relations of dependency, exclusion, and marginalization. Her study finds that poor borrowers, in particular, benefit more from increased social interactions and greater standing in the community. They are better able to offer hospitality, to call on help from neighbors, and to provide help when called upon. New social relationships developed through programs are important, and they are distinct from integration into the pre-existing community hierarchies. In contrast, Copestake et al. (1998) found little evidence that credit group members in urban Zambia help each other out during illness or with funeral expenses. Almagir's study of BURO-Tangail clients in Bangladesh suggests that social assets may be an important intervening variable for impact (Almagir 1997). In the Uganda WDR study, UWFT clients themselves perceived that some people do better than others in microcredit programs because they can call on assistance from other family members (Wright et al. 1999).

c. Impacts of Microfinance on Empowering Women

As previously described, convincing evidence from Bangladesh suggests that microcredit has a positive impact on some aspects of women's empowerment. Zaman's analysis of BRAC data for this study considered sixteen indicators of women's empowerment, ranging from knowledge and awareness of various social issues to ownership and control of assets and mobility.[30] The analysis found two main channels through which microcredit reduces the vulnerability of women. (1) The first is by increasing women's control and decision-making power over their own assets (the ability to sell these assets without asking consent). Women who have borrowed more than 10,000 *taka* are 26 percent more likely to be able to sell poultry independently compared to eligible non-members. Women's control over jewelry also is likely to increase with cumulative loan size. Women who have borrowed more than10,000 *taka* are twice as likely to be able to sell jewelry independently compared to eligible non-members. Women's decision-making power over the use of savings increases with loan size. (2) The second channel for reducing vulnerability is by increasing knowledge, specifically knowledge about the legal way to divorce, knowledge that dowry is illegal, and knowledge of the local chairman's name. It is not clear if this knowledge is actually put into practice, but greater legal and political awareness is an important first step in raising women's consciousness of their rights within the household and community at large.

Zaman's findings on the contribution of microcredit to some, but not necessarily all aspects, of women's empowerment are supported by other studies from Bangladesh. Amin et al. (1994 as cited in Zaman 1999) found membership in BRAC positively affects a woman's decision-making role and her control over resources, mobility, and her ability to deal with the possibility of being deserted by her husband; but it has less impact on attitudes regarding marriage and education of daughters. Navad (1994) found the status of women in households improved in terms of more active participation in decisions and more control over household income, especially the income they earn. Credit groups helped some women resolve family

[30] The study covered 1,568 ever-married women in the Matlab region, including 379 borrowing BRAC members and 1,189 eligible non-members.

disputes. Hashemi et al.'s (1996) study of Grameen Bank and BRAC found improvements in women's physical mobility, economic security, ability to make own purchases, freedom from family domination and violence, political and legal awareness, and public participation. Chen's (1992) review of Grameen Bank research found that women members were more conscious of rights, were better able to resolve conflicts, and had more control over household decisions. Kabeer's (1998) research also finds important changes for women at the personal level, including (1) a greater sense of self-worth, (2) economic agency, and (3) their own contributions to the household economy. In terms of family relationships, this research finds strong interdependencies and cooperation among household members. The power balance is loaded in favor of men, however, and women are far more dependent on men financially and socially than the reverse.

Pitt and Khandker's (1995) study of Grameen, BRAC and Bangladesh Rural Development Board's (BRDB's) Rural Development-12 (RD-12) found credit to have positive impacts on women's labor supply and non-land assets. But Zaman found that borrowing from BRAC had a mixed impact on female asset ownership. For example, the impact on livestock ownership is significant only for women who borrow less than 5,000 *taka*. But the impact on savings is high, both for borrowing and non-borrowing members, and it rises steadily with loan size. This impact is a result of BRAC's compulsory savings requirement.

Several studies establish the importance of a woman's contribution to household income in her empowerment (Hashemi et al. 1996; Navad 1994; White 1992 as cited in Zaman 1999). Kabeer (1998) found that empowerment changes are greater when women use at least some portion of their loans to enhance their own contributions to household income. Loans have helped them meet their survival goals and put their livelihoods on a more secure basis, without compromising their dignity or self-worth. Independent access to loans allows women to carve out an autonomous sphere for themselves within their marriages and enables them to escape from some of the more humiliating consequences of their marriages. Such access to loans also enables women (and men) to withdraw from demeaning and humiliating forms of social relations. For example, they can move from casual work or waged labor to self-employment, or they can reduce their reliance on usurious moneylenders. Some women are able to move from public forms of labor to working from their own homes. For them, empowerment is the ability to make choices about what types of work they do and where they do it.

Osmani's study (1998) on the impact of the Grameen Bank on women's empowerment finds that participation in microcredit programs contributes only partially and conditionally to improvements in autonomy, control over decision-making, and access to resources. Partial and conditional improvements are due to the downward pressures exerted on women by cultural conditioning and limited options for women to independently use credit.

Evidence from other countries on the impacts of microcredit on women's empowerment is scant, but it generally supports the positive findings from Bangladesh. A study in Sri Lanka found that loans contributed to women's independent income, which gave them more bargaining power in their relations with male family members (Hulme and Montgomery 1996). Results from Thailand show an increase in women's confidence and cooperation with neighbors, as well as an increase in their husband's likelihood of listening to them. The findings from Africa (Guinea, Senegal, and Kenya) show gender differences in decision-making, but little evidence of change in

decision-making patterns. Evidence of increased self-confidence, however, exists among women (Creevey, Ndour, and Thiam 1995; Sebstad and Walsh 1991; Vengroff and Creevey 1996). After their survival needs have been met, women borrowers tend to value security-related investments, such as savings and investments in health and children's education.

Women's empowerment has important sociocultural dimensions and considerable debate remains about how to define these issues and study them across different types of households and in different cultural settings and contexts. More research on this topic outside of Bangladesh would be useful.

2. The Impact of Microfinance on Reduced Vulnerability

Referring to his Bangladesh work, Zaman (1999) argues that microcredit may have a more significant impact on reducing vulnerability (by building assets, smoothing income, and empowering women) than on reducing income poverty (increasing income and consumption). He cites Morduch's (1998a) analysis of 1992 World Bank data on three programs in Bangladesh that found no evidence that microcredit reduces income poverty (using a consumption-based measure of household expenditure).[31] The analysis, however, did find a reduction in the variability of consumption—by about half—for clients in all three programs. The analysis further revealed that consumption smoothing among clients was driven not by the direct use of loans for consumption, but rather by the use of loans to reduce the variability in labor supply and thus to smooth income. The use of loans to smooth incomes and the resulting impact on reducing the variability of consumption suggest the positive impact of microcredit on reducing the vulnerability of client households, but not necessarily their income poverty.

One explanation for greater impacts on vulnerability, as illustrated throughout this study, is that there are many channels through which microcredit can reduce vulnerability, but fewer channels through which it can single-handedly reduce poverty. Thus, the findings on greater impacts, in part, may be definitional—because the concept of vulnerability is broader than the concept of income poverty.

Nevertheless, it is clear, at least in the findings from Bangladesh, that impacts on income poverty are more conditional than impacts on vulnerability, which supports the finding that microfinance services have a greater impact on vulnerability than on income poverty. Zaman argues that microcredit can reduce income poverty if credit is used in an income-generating activity and the activity generates returns in excess of the loan installment. If the investment does not generate a sufficient net profit, however, the loan must be repaid by a reduction in consumption rather than by a return on investment. In this case, the impact on income poverty may be negative. At the same time, an asset that can reduce vulnerability is created. In another

[31] This data originally was analyzed by Khandker (1998 as cited in Zaman 1999) who found that, controlling for other factors, income poverty (based on a consumption-based measure of household expenditure) fell by 15 percent for moderate poor households and 25 percent for ultra poor households that have been members for up to three years. With the same data, Morduch, using an approach that corrects for selectivity bias, found no evidence of a reduction in income poverty, as described here.

scenario, credit may be used for a non-income-generating investment, such as repaying an existing debt, improving housing, or fulfilling social obligations. In these cases, a temporary reduction in income poverty will occur; however, future consumption will have to be sacrificed to meet the loan repayments. Empirical evidence presented suggests that there may be a threshold cumulative loan size beyond which microcredit can make a significant dent on income poverty. Ultimately, the route through which microcredit can reduce income poverty is through investments in productive assets.

By contrast, the impacts of microfinance on vulnerability are less conditional and may occur through many different pathways. One pathway is asset creation associated with a series of loan-financed investments, which may include investments to create or expand one or more income-earning assets, investments to improve housing conditions, or investments to build other assets. Another pathway is through income smoothing, which occurs, for example, through labor mobilization to create new non-farm sources of income, by saving a part of the loan for the lean season, or by diversifying income sources to reduce the overall variability of household income. Microfinance may also have an impact on reducing women's vulnerability by contributing to her empowerment by strengthening and increasing her human and social assets. A fourth pathway to reduced vulnerability is through emergency assistance provided by microfinance institutions to communities in response to shocks (for example, BRAC's response during floods in Bangladesh), or to individuals in response to unexpected economic stress events (for example, CARD Bank's response to client emergencies through multipurpose loans).

While Zaman presents a convincing case for Bangladesh, studies are lacking from other places that compare the impacts of microfinance on income poverty to impacts on vulnerability. Nevertheless, the WDR field studies and literature review found a repeated pattern of positive impacts on variables related to vulnerability: building all kinds of assets, smoothing income, and empowering women. This pattern repeats itself across programs and countries, across different poverty groups, and across groups of clients who have been in programs for different lengths of time. Further research on this topic could improve understanding of the wider benefits of microfinance and could contribute to the design of microfinance products, services, and delivery mechanisms that can reduce the vulnerability of poor households and, over time, increase their productive capacity and incomes.

VII. Summary and Conclusions

The previous sections examined the impact of microfinance on selected non-income dimensions of poverty, specifically those related to risk, vulnerability, and assets. Risks were considered in terms of shocks and economic stress events that result in an economic loss. Vulnerability was defined as the capacity of individuals and households to deal with risks. The study emphasized the role of assets—financial, physical, human, and social—in reducing vulnerability by helping individuals and households protect against risks ahead of time and manage economic losses following a shock or economic stress event.

A. Key Findings

By focusing on the impact of microfinance services on risk, vulnerability, and assets, the research explores new ground. It confirms that microfinance clients live in a high-risk and constantly changing environment. It reveals their remarkable resourcefulness in coping with wide-ranging anticipated and unanticipated risks in the context of limited resources and opportunities. Financial services contribute to this process by helping clients build all kinds of assets, which are critical in protecting against risks ahead of time and coping with losses afterwards. They also enable clients to diversify their sources of income by providing chunks of money to take advantage of opportunities when they present themselves. Financial services strengthen other coping mechanisms as well—by providing access to a steady source of credit, offering a safe place to save, and building social networks. Financial services are important for women because these services increase their access to independent income and strengthen their decision-making roles within and outside households. Faced with fewer assets and opportunities than men, access to financial services opens up women's options to improve their living standards and to reduce the poverty of their families.

While financial services play an important role in building assets and reducing the vulnerability of clients, they are not a panacea. Nevertheless, they still could do more. For example, emergency loans and other flexible loan products, more accessible savings services, and selected insurance products could improve the capacity of clients to deal with a wider range of risks in their lives. Linking financial services with other supportive services, along the lines of innovative programs carried out by BRAC and Pro Mujer, could improve clients' ability to deal with certain types of risks, including risks associated with borrowing. This link is especially significant for poorer clients. Expanding outreach to a broader spectrum of clients, especially better-off clients, could be achieved by offering individual loans rather than group loans. Providing a wider range of services that improve the ability of clients to deal with risks could serve to reduce the risk of taking a loan which, ultimately, translates into better repayment, sustained demand for financial services, and lower portfolio risk for MFIs. Improved understanding of clients' strategies for dealing with risk and the role of financial services in this process could provide a basis for designing better products, promoting sustainability, and improving impacts.

1. Whom Do Microfinance Programs Reach?

Available data shows that microfinance programs have been more successful in reaching clients from moderate poor and vulnerable non-poor households than from extreme poor households. The literature review identified twenty microfinance impact studies with data on the poverty levels of clients. The studies used different measures of poverty—income/consumption measures, wealth/physical asset measures, and participant-defined measures of poverty—so the findings are not comparable in a strict sense. Across a range of studies and programs, however, a pattern repeats itself: limited participation of clients from extreme poor households and substantial participation and even majority status of clients from vulnerable non-poor households. In general, a majority of microfinance clients cluster just above and below the poverty line. Clients from extreme poor households do participate in microfinance programs but do not compose a majority of clients in most of the cases studied. It is noteworthy that the mix of clients is observed across and within different types of programs, including both programs targeted to the poor and non-targeted programs open to all groups. It is not the case that some programs reach one group and other programs reach another.

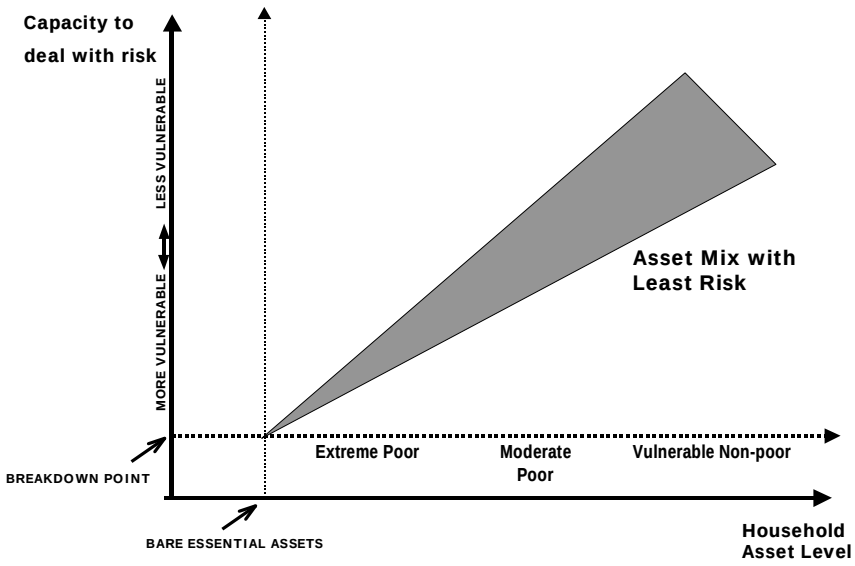
The limited participation of clients from extreme poor households suggests that programs may have more impact on reducing the incidence of poverty than the severity of poverty. For those concerned with reducing the incidence of poverty, strong justification exists for involving vulnerable non-poor in microfinance programs, to the extent that financial services can help them reduce their vulnerability to risks and prevent them from falling into poverty. For those concerned with reducing the severity of poverty, however, these findings are likely to show lower-than-desired participation rates for the extreme poor. Information is too limited to know whether the extreme poor select themselves out of these programs, whether they are selected out by groups, whether they are selected out by staff (who focus on repayment capacity), or whether they drop out because products and services are not appropriate. It is likely to be some combination of each. Recent research on MFI dropouts in East Africa (Hulme 1999) suggests that poorer and better-off group members find MFI products less attractive than ‘average’ clients and are thus more likely to exit.

2. What Is the Nature of Risk Facing Microfinance Clients?

Microfinance clients at all poverty levels are vulnerable to frequent and wide-ranging risks. Sources of risk include structural factors such as seasonality, inflation, or weather; unexpected emergencies such as sickness or death of a family member, loss of employment, fires and theft; and the high costs associated with life cycle events such as marriages, funerals, and educating children. Risks associated with operating an enterprise include price fluctuations, high competition, limited market access and information, hiring labor, or investing in technology. Risks associated with taking a loan include the stress of loan repayments; if they default on a payment, they lose access to an important coping mechanism; if they sell assets to repay loans, they reduce their ability to cope with future risks. (See Figure 5, Relationship between Household Assets and Vulnerability, and Figure 6, Relationship between Household Assets and Vulnerability by Poverty Level).

Illness, death, and the loss of an income-earner are among the most prominent risks cited by microfinance clients. Accidents, crime, and robberies also ranked high.

Figure 5: Relationship between Household Assets and Vulnerability



Notes: This figure shows the relationship between household assets and vulnerability. The figure suggests that households generally need a minimum level of assets (bare essentials) and a minimum ability to cope with risk (above the breakdown point) to survive.

Definitions:

Household asset level. A household's net assets, including all types of assets—physical, financial, human, and social.

Bare essential assets. A minimum level of assets a household needs to survive.

Household ability to cope with risk. The working definition of vulnerability in the WDR paper. The greater the household's ability to cope with risk, the lower its level of vulnerability. In general, a positive, but not necessarily direct, relationship exists between a household's asset level and its ability to deal with risk. The fact that this relationship is not direct may be related to the 'mix' of household assets.

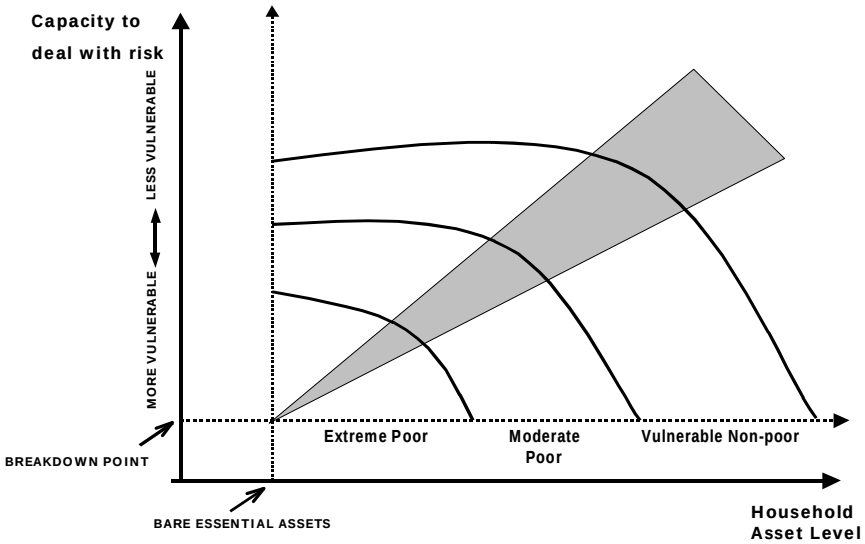
Breakdown point. The point at which the household's capacity to cope with risk is so low that its very survival is threatened.

Asset mix with least risk. The shaded triangle suggests there is a 'mix' of physical, financial, human, and social assets that presents the least risk for households at different poverty levels. For example, a mix of human and social assets may be more important for reducing the vulnerability of extreme poor households, while physical and financial assets may increase in importance for moderate and vulnerable non-poor households.[a] Those households seeking to reduce their vulnerability (capacity to deal with risk) ideally strive to locate in the shaded area.

The asset level of a household corresponds roughly to its poverty level. Extremely poor households have lower levels of assets. Moderate poor and vulnerable non-poor households progressively have higher levels of assets.

[a] The specific mix of assets is not depicted in this figure.

Figure 6: Relationship between Household Assets and Vulnerability by Poverty Level



Notes: Microfinance clients' households typically fall into one of three groups related to their level of assets and ability to deal with risks, which corresponds roughly to three poverty levels and a continuum of household economic goals. These groups range from the extreme poor with a concern for survival at the lower end, to the moderate poor with an emphasis on economic security at the middle, to the vulnerable non-poor with a focus on longer-term economic security and a higher standard of living at the higher end.

Definitions:

Extreme poor households are concerned primarily with survival and viability. Because they are close to the 'breakdown point' and to the 'bare essential assets' level, they focus largely on coping with and protecting against risks. Their capacity to bear risk is low, so they are likely to (1) be risk averse in their economic strategies and (2) use financial services to build precautionary savings; invest in low-risk, low-return investments; and build social networks.

Moderate poor households have slightly more assets but are not that far from the 'breakdown point' or 'bare essential assets' level. Their primary concerns are (1) protecting the little they have, (2) cautiously increasing and maintaining their economic security, and (3) protecting against risk in their economic strategies. They are likely to use financial services to build human assets (invest in education), build physical assets (invest in housing), and smooth income by diversifying into relatively low-risk activities and building liquid savings.

Vulnerable non-poor households have been able to build up a larger and more solid base of assets, but they still face many risks that make them vulnerable to loss and falling into poverty. Their higher level of assets enables them to take more risk in their economic strategies, but this, in turn, increases their vulnerability. They are likely to use financial services to invest in less-liquid assets, increase productive assets, and seek out and take advantage of higher-risk investment opportunities.

Household economic goals can change over time as the life cycle of the household changes, or as the household increases or decreases its asset base. Within each group, some households are more vulnerable, some are less vulnerable; some have more assets and some have fewer assets; and the mix of assets varies. But in general, as households move from the extreme poor group to the moderate poor group to the vulnerable non-poor group, they increase their asset levels, increase their ability to deal with risk, and become less vulnerable.

The arched shape of each poverty group is not intended to suggest any mechanical trade-off between the declining poverty level and vulnerability. Rather the figure is intended to be indicative of the changing relationship between assets and vulnerability. Whatever the actual trade-offs, households in all three groups, to some extent, are vulnerable to risk.

3. What Strategies Do Clients Use To Deal with Risk?

The capacity to deal with risks is an important dimension of poverty from a client perspective. The capacity to deal with risks depends on the frequency of the shock or economic stress event and the associated costs. It further depends on the resources and range of coping mechanisms available to an individual or household to protect against it ahead of time or deal with it after it occurs. The ability to cope with risks also will be affected by whether it is covariant (events that affect all households at the same time) or idiosyncratic (events that affect only some households).

To protect against risk ahead of time, clients use key strategies that include (1) diversifying sources of household income to smooth income and consumption; (2) building a solid and mixed base of assets that can be drawn upon in times of need; and (3) managing money wisely by saving, minimizing expenditures, and maintaining access to multiple sources of credit if possible.

In coping with shocks and economic stress events after they happen, microfinance clients tend to use low-stress and medium-stress coping mechanisms that include (1) reducing consumption by cutting back on expenditures for food, clothing, and education and (2) drawing on social assets by receiving in-kind assistance in the form of food, childcare, or housing. Strategies also involve increasing income by mobilizing family labor, starting a new enterprise, or liquidating non-productive physical assets. Clients also use personal financial intermediation such as drawing on savings deposits, using informal group-based insurance mechanisms, or borrowing from informal sources. Because most clients are not extremely poor, they are less often forced to use negative coping strategies such as drawing down their working capital, selling off productive assets, defaulting on loans, or pulling children out of school to work.

Assets play an important role in reducing poverty and vulnerability from a client perspective. The field studies highlight the central importance of physical, financial, human, and social assets in client and microfinance practitioner definitions of poverty and perceived pathways out of poverty. The findings suggest the importance of a steady source of income, three meals a day, savings, improved housing, health, education, the accumulation of other physical assets, and strong reciprocal social networks and community involvement as routes out of poverty.

4. How Does Microfinance Contribute to Reduced Vulnerability?

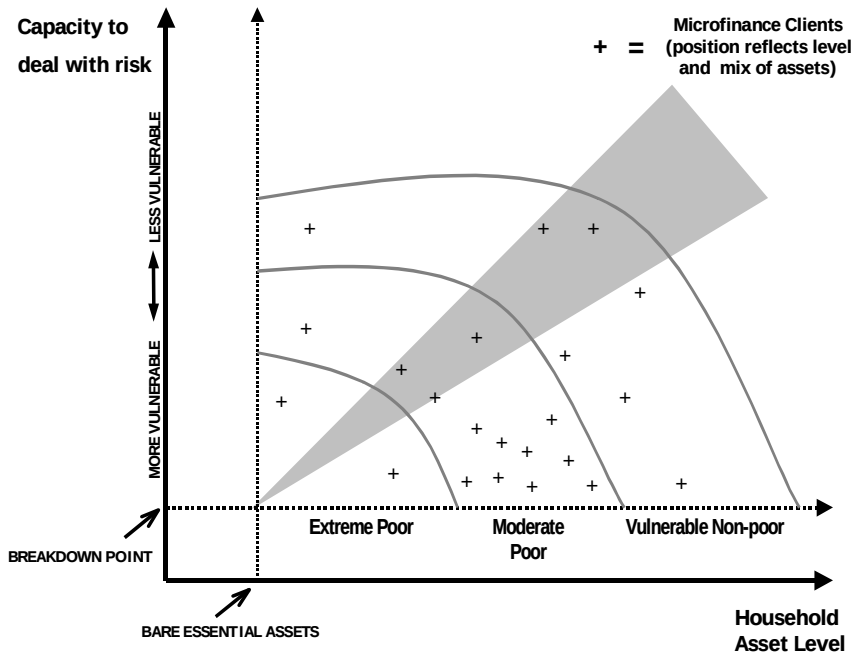
This study centers primarily on the use and impact of credit in reducing vulnerability. Little information on savings and insurance was available. Generally, it is more common for clients to use microcredit to protect against risk ahead of time than to use loans to smooth consumption following a shock. Overall findings from the field studies and literature show that clients use program loans for a wide range of purposes, which improve their ability to protect against risks ahead of time. Clients invest in existing or new businesses to stabilize, increase, and smooth incomes. They also use program loans to build assets that can be drawn upon in times of need, including productive assets that generate income. Investment in productive assets is more

prevalent among clients who have higher cumulative loan sizes, which generally is associated with length of time in the program. The ability of a microfinance program to retain and serve clients over time, therefore, is an important dimension of impact. The study findings show limited use of program loans for coping directly with losses, even in Bangladesh after the floods. When clients do use loans for coping with loss, they usually use them to rebuild the base of income and assets rather than for direct consumption. At the same time, it is not uncommon for clients to use informal credit as an ex post coping mechanism.

The results of this study support the proposition that microcredit helps clients protect against risks ahead of time. Clients use their loans (1) to improve and smooth incomes through enterprise and other productive investments; (2) to accumulate or retain physical assets, such as investments in housing, vehicles, and equipment or physical assets used as a form of liquid savings, such as jewelry or livestock; (3) to build financial assets such as savings or livestock; (4) to build human assets through investments in children's education and family health care; or (5) to strengthen social assets by helping out friends and relatives in need, taking in orphans, or fulfilling social obligations such as contributing to funerals, weddings, and birth ceremonies. Impact studies across countries and programs show positive impacts on variables related to reduced vulnerability: diversified income sources, increased assets of all kinds (including human and social assets), and women's empowerment. (See Figure 7, Vulnerability of Microfinance Clients and Their Use of Microfinance Services, and Figure 8, The Impact of Microfinance Services on Reduced Vulnerability.)

Maintaining access to credit is an important risk management strategy for the poor. The WDR field studies found that clients go to great lengths to repay their loans, even when they are hit with a shock or economic crisis event. The evidence from Bangladesh showing continued loan repayments during and after the floods is particularly compelling evidence (Zaman 1999). Maintaining access to multiple sources of credit, including MFI credit, is a key money management strategy to protect against risk and cope with loss. The WDR field studies found clients to be highly active in a range of informal borrowing systems in their communities. Women, especially poor women who head households, have fewer options than men for borrowing within their communities. With these more limited options, their continued participation in an MFI program is particularly important and may explain why women have such good repayment rates across programs.

Figure 7: Vulnerability of Microfinance Clients and Their Use of Microfinance Services

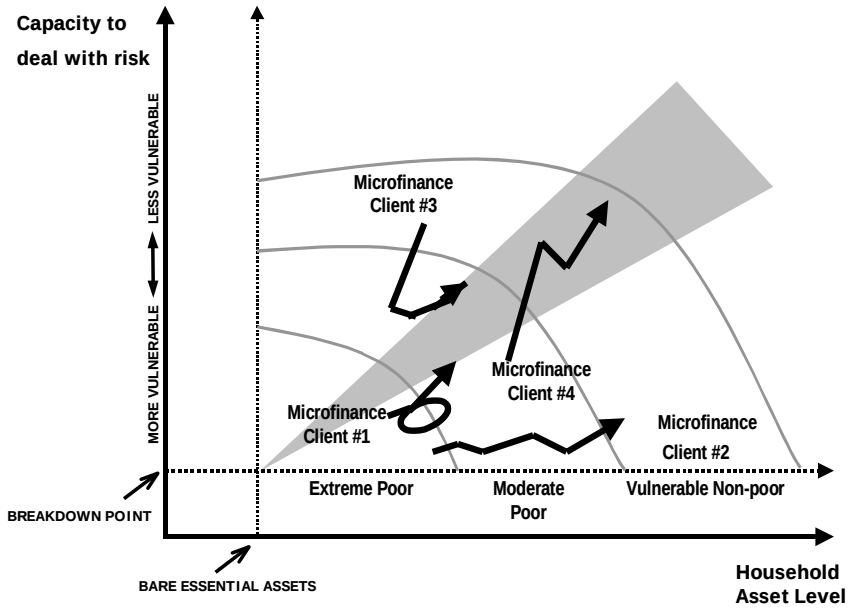


Notes: Households of microfinance clients would fall somewhere in the area above the 'breakdown point' line and to the right of the 'bare essential assets' line. Each '+' symbol represents the household of a microfinance client with a particular level and mix of assets and level of vulnerability.

Figure 7 suggests the following:

- Households that are closer to the breakdown point in terms of their ability to deal with risk will be concerned with maintaining their current level of household assets and will be relatively risk averse. They may tend to use microfinance to protect their base of income and assets.
- Households that are closer to the bare essential assets line may have faced a recent shock and loss, and they may be using microfinance to rebuild their base of income and assets.
- Households that are close to either the breakdown point line or the bare essential assets line, by definition, are more vulnerable and less likely to use microfinance for high-risk investments.
- Households that fall more in the middle of their zone, at a comfortable distance from both the breakdown point and the bare essential assets line (that is, those household that are less vulnerable and have a higher asset level and better asset mix), are more likely to use microfinance for higher-risk investments when the opportunity arises.
- All households face the possibility of crisis that may result in a loss of assets, and all households are concerned with protecting against this possibility. It follows that in all three groups, clients may use microfinance to cope with a loss or protect against risk and thereby prevent backsliding into a more vulnerable state. Microfinance can play a role in reducing vulnerability for households in all three groups.

Figure 8: The Impact of Microfinance Services on Reduced Vulnerability



Notes: Each line represents the 'impact path' of a microfinance client.

Client number one is from an extreme poor household with a low level, but well-balanced mix, of assets. She uses her first loan to build up her asset base but suffers a loss and falls back. She uses a second loan to rebuild and increase her assets and moves forward into the moderate poverty group. Through this process she gradually increases her capacity to deal with risks, thereby reducing her vulnerability.

Client number two is from a moderate poor household with a slightly higher level of assets, but she is vulnerable. She uses a series of loans for low-risk, 'protectional' investments, and over time, gradually and cautiously increases her base of assets and slightly reduces her vulnerability.

Client number three is from a vulnerable non-poor household with a relatively modest level of assets, but she has a good capacity to deal with risk (e.g., she may have good business skills or rich relatives who will support her). She invests her loan in a high-risk activity, suffers a fairly dramatic loss, but is able to recover relatively quickly with help from her relatives and a second loan. The new loan helps increase her level of assets and shift her composition of assets to a less-risky mix.

Client number four is a success story. She is from a moderate poor household with a modest level, but balanced mix, of assets. She uses her first loan for a high-risk, high-return activity and is successful. She increases her base of assets, improves the mix of assets, and improves her capacity to deal with risk. She takes a second loan and suffers an initial loss. Because she has a good mix of assets, however, she is able to cope with the loss and recover. Over time, she continues successfully on an upward path, increasing her level of assets, maintaining a balanced mix of assets, and expanding her capacity to deal with risks, thus reducing her vulnerability.

Figure 8 further suggests the following:

- In all three groups, including the extreme poor, clients may use microfinance to take risks; that is, to invest in higher-risk activities that have potential for higher returns. If the outcome is positive, this may contribute to increasing the household asset base and its capacity to bear risk, thereby reducing its vulnerability. Clients in the vulnerable non-poor group have broader scope for taking risks than those in the moderate poor or extreme poor groups.
- Through time, households can move back and forth from group to group. Within groups, they may increase or decrease their assets or change their mix of assets and become more or less vulnerable.

B. Implications for Improving Microfinance Products, Services, and Delivery Mechanisms

The findings in this study highlight a number of challenges for MFIs in improving microfinance products, services, and delivery mechanisms that meet the needs of clients and increase their capacity to deal with risks. These challenges include (1) matching products to clients' needs, (2) matching repayment amounts and cycles to clients' needs, (3) matching loan size to clients' needs, (4) examining the demand for individual loans, (5) increasing services to vulnerable non-poor households, (6) examining financial flows and repayment cycles, (7) broadening the range of products and services, (8) increasing product flexibility, (9) providing insurance products, and (10) increasing individual savings opportunities.

1. Match Products to Clients' Needs

One challenge relates to developing financial products, services, and delivery mechanisms that meet the financial needs of a wider spectrum of households. To expand and deepen outreach and impact, the microfinance field is challenged to develop products that respond to the needs of clients from both poorer and better-off households. Product development could involve both improving the terms and conditions of existing products and developing new products. To date, the microfinance product market has been relatively homogenous. Although some variation in loan sizes exists, differences in interest rates and other terms and conditions often are small.

2. Match Repayment Amounts and Cycles to Clients' Needs

For poorer households, the risk of taking a loan could be reduced if repayment amounts and cycles corresponded to income flows and the repayment capacity of borrowers. For poorer households, smaller and more frequent installments stretched out over a longer repayment period may be more appropriate. Matching the variable nature of clients' multiple income streams with appropriate repayments amounts and cycles may improve a client's capacity to repay and borrow over the long term and thereby reduce the risk of borrowing for them, as well as reduce the risk of lending for the MFI.

3. Match Loan Size to Clients' Needs

Another issue for poorer borrowers is appropriate loan size. For example, some group systems automatically increase loan size for all members after each cycle, regardless of their need or repayment capacity. The pressure of large loan repayments can force them to leave programs. Poorer borrowers need flexible and timely products with bite-size, manageable repayments.

For better-off households, larger loan sizes could enable them to take advantage of investment opportunities with potentially higher returns. From the standpoint of sustainability, the lower costs generally associated with delivering larger loans, the potential for good

repayment rates, and the possibilities for this client group to cross-subsidize poorer groups should make them attractive to MFIs.

4. Examine the Demand for Individual Loans

Another challenge for MFIs is the extent to which microfinance programs can respond to the demand for individual loans rather than group loans among some borrowers. Some borrowers, especially those from better-off households, are not able or willing to bear the high borrower transaction costs associated with group lending systems. In some cases, high borrower transaction costs are related to weak group dynamics, cumbersome group size or processes, or the 'weeding out' process that often goes on during the formation phase. In other cases, it relates to variations in the credit worthiness of group members or loan terms and conditions that are too rigid. Nevertheless, many women highly value the opportunity to participate in credit groups. While the opportunity cost of their time is high, that cost is outweighed by the benefits of building social assets, developing new skills, and gaining other benefits through participation in credit groups.

5. Increase Services to Vulnerable Non-poor Households

Expanding the outreach of microfinance services to vulnerable non-poor households is important from the perspective of poverty impact. As seen in this research, economic stress events and shocks can push this group below the poverty line and increase the number of poor households. To the extent that some clients from vulnerable non-poor households are in a better position to take risks and invest in employment-generating enterprises, financial support may have potential for secondary employment effects.

6. Examine Financial Flows and Repayment Cycles

For all groups, more attention to client preferences in relation to loan size, repayment cycles, flexible loan products, and transaction costs in the design of products and delivery mechanisms could further improve program outreach and retention by reducing the risk of borrowing for clients. This challenge means looking more closely at the match between household financial and investment flows and loan and repayment cycles.

7. Broaden the Range of Products and Services

A related challenge is broadening the range of products and services offered by MFIs, such as introducing new financial products or services that support client-defined 'pathways out of poverty.' Across the field studies, improved housing and education are perceived as pathways out of poverty for the poor, suggesting the potential for developing housing and education loans or savings products. With housing viewed by the poor as a productive investment and one of the few appreciating assets they can acquire, client demand for housing loans is high. With both the

size of school fees and their timing and frequency predictable, financial vehicles, either savings or credit, should be useful for responding to this financial need.

8. Increase Product Flexibility

To help clients manage and recover from losses associated with unanticipated crises or economic stress events after they occur, MFIs are challenged to provide more flexible loan and savings products. For example, emergency loans could play an important role in helping clients recover lost stock, make repairs on premises or equipment, start a new business activity, or cover health bills. Emergency loans could help clients recover from such events more quickly as they continue to pay their loans and stay in programs. By avoiding the use of negative coping mechanisms, such as selling off productive assets or taking children out of school, and maintaining access to credit, clients reduce their vulnerability to future risks.

The key to success for emergency loan products is their timeliness. The money must be readily available when clients need it. For clients who are in the middle of a loan cycle, emergency loans may enable them to continue to repay their loans and stay in programs when they face an unanticipated crisis. For non-clients, these types of loans could be an important enticement to enter a program. While the capacity of borrowers to carry debt needs to be weighed carefully, emergency loans are proving themselves effective in crisis situations, big and small. Demand is strong in the *Caisses Villageois* in Mali and other MFIs who already deliver emergency loans because they are designed to serve the economic needs of poor households.

9. Provide Insurance Products

To help clients mitigate anticipated, but unpredictable, risks, MFIs are challenged to provide products and services beyond credit. The WDR study results suggest a potential role for insurance products to help clients cope with frequent, idiosyncratic risks such as ill health or death of a family income earner. All are potentially insurable risks. Some MFIs and credit unions include loan insurance, usually as a fee. While loan insurance protects the MFI, it does little to protect clients from emergencies that lead to default. Providing these services is not easy. Yet for MFIs, the direct or indirect provision of insurance services to protect clients against these risks is a win-win proposition for both MFIs and their clients.

10. Increase Individual Savings Opportunities

Finally, the findings suggest a role for more accessible and private savings that are not linked to borrowing and that can be used to deal with anticipated and unanticipated risks and day-to-day economic stresses. Again, it is important that such financial products be structured to reflect the financial and investment cycles of the client and to be accessible when they are needed.

C. Implications for Policy

The findings in this study also highlight a number of policy issues to be considered by MFIs and donors. These policy issues include (1) the importance of client perspectives in improving the outreach, impact, and sustainability of microfinance program; (2) the critical relationship between risks facing borrowers and risks to the MFI portfolio; (3) a role for financial services to support the livelihoods of the poor; and (4) a continued role and broader scope for donor investment in microfinance programs.

1. The Importance of Client Perspectives in Improving the Outreach, Impact, and Sustainability of Microfinance Programs

Strong microfinance programs require an understanding of the financial needs of clients (and potential clients) and how borrowing and saving fit into their money management strategies. To date, many people in the microfinance field have thought of client behavior more narrowly in terms of client satisfaction with a given product, measured by repayment and repeat borrowing rates. Little attention has been paid to how people actually use financial services in relation to their financial needs. Client behavior beyond repayment has not been a principal concern.

Understanding client behavior goes beyond simply looking at how borrowers use and repay loans. It requires an awareness of (1) the economic goals of poor households, (2) how people manage resources and activities in the context of their household economic portfolios, and (3) how they deal with risk in their day-to-day lives. With this starting point, it is possible to see how financial services can (or could) and do (or do not) fit into the process. These factors all affect clients' capacity to assume debt, bear risk, and effectively use financial resources to generate a stable income flow and build assets.

These issues are basic to developing new products and services. Ensuring that the terms, conditions, and delivery of financial products and services correspond to the financial cycles of clients can reduce risks both for clients and for lenders' portfolios. Products and services that respond to clients' needs provide the basis for programs to expand and deepen their outreach and achieve the dual goals of impact and sustainability.

2. The Critical Relationship Between Risks Facing Borrowers and Risks to the MFI Portfolio

The relationship between risks to the client and risks to the loan portfolio has been largely ignored by the microfinance industry. Yet a more explicit recognition of this relationship in the design of products and services can reduce both the risk of borrowing for clients and the risk of lending for MFIs. Products, services, and delivery mechanisms that are designed to improve the capacity of clients to deal with risk in their lives (reduce their vulnerability) and to reduce the risk of taking a loan can lead to better repayment, fewer dropouts, and, accordingly, lower operating costs. While there are limits to how much microfinance alone can do to alleviate poverty, appropriate financial products and delivery mechanisms can play an important role in

helping clients reduce their vulnerability and improve their capacity to bear risk. This provides an important basis for reducing poverty and for strengthening the sustainability of MFIs.

3. A Broader Role for Financial Services to Support the Livelihoods of the Poor

To date, the objective of microenterprise development has driven much of the microfinance field. While microenterprises are an important source of income for many poor households, they are only one part of their overall livelihood systems. Microfinance is more than credit, and as shown in this research, microfinance can play an important role beyond enterprise development in supporting the livelihoods of the poor. The concept of livelihood is a broader than that of enterprise development. It considers a mix of resources, activities, and capabilities that enable individuals and households to pursue their economic goals. In reality, resources within households are fungible, and it is important to recognize that clients will use microfinance services for a variety of purposes. Clients use microfinance not only to invest in enterprises, but also to build household assets, smooth income, and help manage their cash flow. By providing chunks of money when it is needed, microfinance can help clients reduce their vulnerability, expand their options, and graduate from a reactive mode of survival to a proactive climb out of poverty.

4. A Continued Role for Donor Investment in Microfinance Programs

The demonstrated role of microfinance in reducing vulnerability for clients and their households points to a role for continued donor investments in microfinance programs. Impact studies across programs, contexts, and client groups find that microfinance services contribute to building assets, diversifying income sources, and strengthening coping mechanisms for clients at different poverty levels. The impact of microcredit on these indicators of reduced vulnerability cuts across all client groups. While microfinance is not a magic bullet that can eliminate poverty, it can contribute to this process and play an important role in improving the lives and livelihoods of the poor.

ANNEXES

ANNEX A

Findings from the Literature on Which Groups among the Poor Microfinance Programs Reach

Country/Program/ Study/Author	Poverty Indicator	Whom Program Reaches		Notes
		Clients within poverty group	Clients outside poverty group	
ASIA				
Bangladesh (Rai, Topa, and Amin 1999) n=229	Poverty defined as consumption levels	MFI clients slightly poorer than non-members in both villages		
	Vulnerability defined as fluctuation in consumption levels	MFI clients more vulnerable than non-clients in one village (richer and more diversified village) but not the other		
Bangladesh (ASA—rural) (Bruntrup et al. 1997) n=368	Mapping and wealth ranking	Very poor 19% Poor 48%	Middle 26% Rich 7%	
Bangladesh (BRAC) (Husain 1997)	Income indicator Poverty line	Extreme poor 27% Moderate poor 25%	Vulnerable non-poor 48%	
Bangladesh (BRAC) (Zaman 1998) n=3,521	Income indicator Poverty line	Extreme poor 25% Moderate poor 41%	Non-poor 34%	
	Wealth indicator Less than 0.5 decimals of land	80% under wealth indicator	20% over wealth indicator	
Bangladesh (WEDP) (Koopman 1996) n=138	PRA wealth ranking (occupations; sources of household income; household possession of selected assets)	Extreme poor 26% Moderate poor 47%	Modest income 27%	

Country/Program/ Study/Author	Poverty Indicator	Whom Program Reaches		Notes
		Clients within poverty group	**Clients outside poverty group**	
Cambodia (GRET) Bousso et al. 1997) n=360	Wealth indicator (based on inventory of material and financial assets)	Very poor and poor 40%	Average 34% Wealthy and very wealthy 26%	
India (SEWA) (Chen and Snodgrass 1999) n=600	Income indicators Local poverty line	Below local poverty line 5-9% borrowers 14-24% savers	Above local poverty line 91-95% borrowers 76-86% savers	Most households in sample cluster around the poverty line—just above or just below it
	World Bank $1/day poverty line	40% borrowers 50% savers	60% borrowers 50% savers	
Indonesia (BKK) (Mosley 1996b) n=n/a	Income indicators SUSENAS poverty line	Below SUSENAS poverty line 31%	Above SUSENAS poverty line 69%	
	$39 poverty line	Below $39 poverty line 38%	Above $39 poverty line 62%	
Indonesia (KUPEDES BRI—using secondary data) (Mosley 1996) n=n/a	Income indicators SUSENAS poverty line	Below SUSENAS poverty line 4%	Above SUSENAS poverty line 96%	
	$39 poverty line	Below $39 poverty line 6%	Above $39 poverty line 93%	
Indonesia (KURK) (Mosley 1996b) n=n/a	Income indicators SUSENAS poverty line	Below SUSENAS poverty line 22%	Above SUSENAS poverty line 78%	
	$39 poverty line	Below $39 poverty line 29%	Above $39 poverty line 71%	
Philippines (CARD Bank) (Hossain and Diaz 1997) n=133	Wealth indicator (based on value of house and marketable assets)	Within target group 71%	Outside target group 29%	
Sri Lanka (SANASA) (Hulme and Montgomery 1996) n=151	Income indicator Poverty line measure	Below poverty line 52%	Above poverty line 48%	

Country/Program/ Study/Author	Poverty Indicator	Whom Program Reaches		Notes
		Clients within poverty group	**Clients outside poverty group**	
Thailand (Freedom from Hunger credit with education program) (MkNelly and Watetip 1993) n=82	Wealth ranking (based on criteria defined by community members)	Poorest 10% Poor 30%	Medium 34% Better off 21% Wealthiest 5%	No program selection criteria Staff believe that not all poorest households participate, but most are in lower socioeconomic status
LATIN AMERICA				
Bolivia (BancoSol) (Mosley 1996c) n=91 (derived from tables)	Income indicator Poverty line measure	Below poverty line 23%	Above poverty line 67%	
Bolivia (BancoSol, Caja Los Andes, PRODEM, FIE, Fundacion Sartawi) (Navajas et al. 1996) n=588	Unsatisfied basic needs indicators[a] Five programs	Total poor (MP IP Poorest)	Total Non-poor (SNP TNP)	
	1. BancoSol (n=221)	36% (33% 2% 0%)	64% (22% 42%)	
	2. Caja Los Andes (n=124)	26% (23% 3 % 0%)	74% (23% 51%)	
	3. PRODEM (n=69)	81% (66% 15% 0%)	19% (11% 8%)	
	4. FIE (n=91)	20% (18% 2% 0%)	80% (34% 46%)	
	5. Fundacion Sartawi (n=83)	76% (57% 18% 1%)	24% (4% 20%)	
Peru (ACP/Mibanco) (Dunn 1999) n=400	Income indicator National poverty line	Below poverty line 28% 9% of new clients extreme poor	Above poverty line 72%	No long-term clients were among the extreme poor
AFRICA				
Malawi (Malawi Mudzi Fund) (Buckley 1996b) n=120	Wealth indicator Land holding >1 hectare—non-poor <1 hectare—poor <.5 hectare—core poor	Core poor 33% Non-core poor 42%	Non-poor 25%	

Country/Program/ Study/Author	Poverty Indicator	Whom Program Reaches		Notes
		Clients within poverty group	**Clients outside poverty group**	
Mali (CVECA) (Ouattara et al. 1997) n=n/a	Wealth indicator (villagers' definitions of wealth)	Poor households (<1000) 64% in two *cercle* 42% in one *cercle*	Other households (1000+) 36% in two *cercle* 58% in one *cercle*	Indicators include dependency ratio; number of full granaries; size of herd; possession of some productive assets or highly valued durable, financial assets; and human capital
Zambia (PULSE) (Copestake et al. 1998) n= 87	Income indicator National poverty line	Extreme poor 19% Moderate poor 12%	Non-poor 69%	
	Self-perception of clients		Majority from least poor 50% households A majority of clients share characteristics of 'real people'	

[a] MP = moderate poor; IP = indigent poor; Poorest = poorest; SNP = satisfied non-poor; TNP = Threshold non-poor

ANNEX B

Field Reports

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