

Making Insurance Work for Microfinance Institutions

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**A Technical Guide
to Developing
and Delivering
Microinsurance**



International Labour Office



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*A Technical Guide to Developing and
Delivering Microinsurance*



Craig F. Churchill
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Michael J. McCord
James Roth

2003

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**MAKING MICROINSURANCE WORK FOR MICROFINANCE INSTITUTIONS:
A TECHNICAL GUIDE TO DEVELOPING AND DELIVERING MICROINSURANCE**

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This manual was prepared jointly by Craig F. Churchill, Dominic Liber, Michael J. McCord and James Roth

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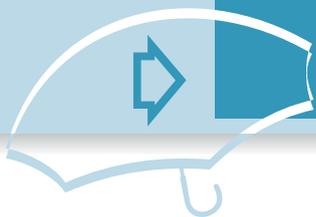


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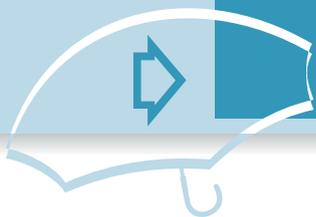


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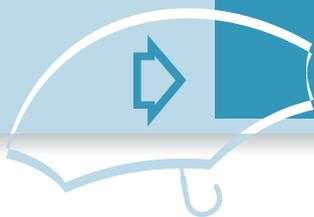


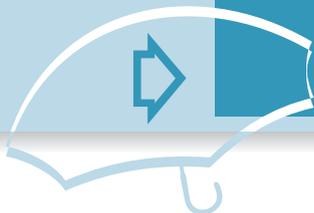
TABLE OF ACRONYMS

A	Assets
AB	Additional Benefit
ADR-TOM	Association pour le Développement de la Région de Toma
AIDS	Acquired immunodeficiency syndrome
AIG	American Insurance Group
AIMS	Assessing the Impact of Microenterprise Services
ASSA	Actuarial Society of South Africa
CDF	Co operative Development Foundation
CEO	Chief executive officer
CETZAM	Christian Enterprise Trust of Zambia
CL	Credit Life
CRP	Credibility risk premium
E	Expenses
FAQ	Frequently asked questions
FCFA	Francs de la Communauté Financière Africaine
FINCA	Foundation for International Community Assistance
FU	FINCA Uganda
GDP	Gross domestic product
GM	General Manager
GPA	Group personal accident
GRET	Groupe de Recherche et d'Echanges Technologiques
GTZ	German Technical Cooperation
HIV	Human immunodeficiency virus
I	Income
ICNW	Indian Cooperative Network of Women
IFP/SEED	InFocus Programme for Small Enterprise Development



ILO	International Labour Office
IRDA	Insurance Regulatory and Development Authority
L	Liabilities
LEAD	League for Education and Development
LIC	Life Insurance Corporation of India
MBA	Mutual benefit association
MBP	Microenterprise Best Practices
MFI	Microfinance institution
MIS	Management information system
MUFEDE	Mutualité - Femmes et Développement du Burkina
NGO	Non-governmental organisation
PR	Public relations
PRA	Participatory rapid appraisal
PRODIA	Promotion du Développement Industriel, Artisanal et Agricole
R&D	Research and development
ROSCAs	Rotating credit and savings associations
SEWA	Self-employed Women's Association
SFP	Social Finance Programme
SOCFAS	Finance, Actuarial and Statistical Services Branch
UII	United India Insurance
UMASIDA	Umoja wa Matibabu kwa Sekta Isiyu Rasmi Dar es Salaam
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
US	United States
US\$	United States dollar
USAID	United States Agency for International Development
Z	Credibility
ZMK	Zambian Kwacha





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Microinsurance is one way to improve access to social protection, which is part of the ILO's goal of achieving decent work for all. Microinsurance can contribute to IFP/SEED's work on promoting job quality in micro and small enterprises, as well as to SFP's efforts to use financial services to reduce the vulnerability of the poor. The ultimate aim of this manual is to offer low-income households a service that will improve their quality of life and work.

This guide was based on the foundation of several ILO microinsurance studies, also funded by the Dutch government, which were done in South Africa, Burkina Faso, Zambia, the Philippines and India. Sincere appreciation is extended to the authors of those reports, who in turn have made valuable contributions to this manual: Michael Aliber, Ramesh Arunachalam, Eloisa Barbin, Alitou Ido, Cristopher Lomboy, Lemmy Manje, Elmer Soriano and Girija Srinivasan. These reports can be accessed at www.ilo.org/socialfinance under publications.

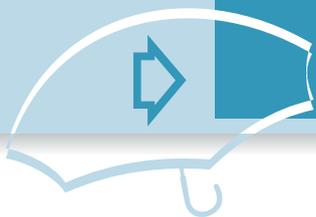
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The usual disclaimer applies: the authors assume full responsibility for any errors.

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PREFACE

This how-to manual guides managers of microfinance institutions (MFIs) through the complexities of offering basic insurance products, either on their own or in partnership with an insurance company. Insurance is one solution to help low-income households and microfinance institutions to manage risks, but it is not the only solution and it is not always the best solution. Written for senior managers and directors of MFIs that offer insurance or are planning to do so, this manual helps readers to determine whether it is appropriate to offer insurance, which type of insurance product(s) to offer, and through what institutional structure.

This bulk of this manual is dedicated to four aspects:

- 1) The fundamentals of the insurance business, including benefit design, insurance terms, pricing and controls;
- 2) The design of five basic, short-term, credit-linked insurance policies, both mandatory and voluntary;
- 3) Outsourcing part or most of the insurance responsibilities to a formal insurance company or to skilled consultants;
- 4) The financial management and operational integration of an insurance business into a microfinance institution.

While low-income households have many needs and vulnerabilities, the contents of this manual are limited to basic life and disability products because they respond to an important need while being less difficult for MFIs to offer. The insurance business is highly complex and carries significant risk, thus basic life insurance is a good starting point for an MFI.

This manual is also relevant, however, to organisations that want to offer other types of insurance, such as health or property, because it provides a strong introduction to insurance fundamentals and offers valuable advice on how to design, negotiate and manage a relationship with an insurance partner. While it may be possible for an MFI to offer basic insurance on its own, or with some technical support from insurance experts, more complex products should be offered in partnership with an insurer.

INTRODUCTION

A **risk** is the chance or likelihood that an event will cause damage or loss. Low-income entrepreneurs are particularly vulnerable to risks, such as illness, injury, theft and death. Of these, death is among the most serious risks faced by low-income households, especially the death of a breadwinner. Not only does the household face a rise in short-term expenses for funeral or burial costs, which can be quite large in some societies, but it also faces the long-term problem of losing that person's labour contribution to the household enterprise. While the household may employ various coping strategies, such as participation in burial societies and relying on the generosity of friends and family, informal coping mechanisms are sometimes unreliable or inadequate.

Microfinance institutions (MFIs) lend money to low-income entrepreneurs, so MFIs are vulnerable to the same risks as their clients. When a risk event strikes borrowers or their family members, it often affects their ability to repay their loans.

Coping with Death Risk

There are several ways that MFIs protect themselves from the death risks of their clients. If a borrower dies, an MFI may follow one of the following five paths:

1. **Expect the group to repay:** For MFIs that use a group lending methodology, they may require the group to repay the debts of a deceased member. This creates an incentive to the group, which is more likely to have information about a prospective member's health than a credit officer is, to screen out members who are unhealthy and may die during the loan term. If a member dies, however, the group is not always keen to repay the member's debts. When trying to collect from the group, some MFIs encounter tension and resistance that may cause more costs—in terms of client desertion and perhaps even additional loan losses—than benefits. An MFI will have particular problems with this approach if multiple members in the group die.
2. **Try to claim from the estate:** MFIs that use an individual lending methodology do not have the group to rely on, so if a borrower dies they may try to claim the debt from the **estate** or seize collateral. (Some borrower groups also try this approach rather than repaying a member's debts from their pockets). Unfortunately, this claim on the survivors' reduced income (due to the death of a breadwinner) comes when the household has a surge



in expenses (to pay for the funeral). Some MFIs find it unsavoury to claim from the estate, which could also undermine the organisation's **public image**.

3. **Write off the loan as a bad debt:** MFIs that do not extract balances for dead borrowers from their group or estate may write off the loan as bad debt. Since the alternatives may produce bad publicity and tensions with customers, this option is sometimes more cost-effective. One problem with the write-off approach is that MFIs may not keep track of the loan losses that are linked to death, so they may not know whether death-related costs are increasing. If MFIs go upmarket and offer larger loans, they may find this means of covering death risks expensive, particularly in regions with worsening mortality rates. If a disaster or other **covariant risk** kills a number of borrowers at once, this arrangement can cause a severe hardship for the MFI.
4. **Self-insure:** To keep track of losses associated with death, and to pass on the additional expenses to clients in the form of a higher interest rate or a fee, some MFIs self-insure. They may, for example, charge a small additional fee, which they place in a reserve fund. If a client dies, the balance is written off and deducted from the fund. This arrangement helps an MFI to reduce loan losses. It also creates a mechanism to monitor defaults due to death and to charge for them. Some MFIs even extend the purpose of this fund to cover loan losses associated with other risks, such as businesses destroyed in a market fire or flood. Typically the pricing for self-insurance tends to be somewhat arbitrary or roughly determined. A possible downside to this approach is that clients may be charged more than necessary, resulting in a competitive disadvantage, and yet the MFI may still be vulnerable to covariant risks.
5. **Partnering with an insurance company:** The fifth coping mechanism that MFIs use to deal with borrowers' death risk is to offer credit life **insurance** as an agent for a regulated insurance company. This **outsourcing** arrangement has the advantage of taking the risk completely off of the MFI's books. A partnership between an MFI and an insurance company partnership also has challenges, including finding appropriate partners and negotiating a mutually beneficial relationship.

None of these options are perfect. This manual focuses on maximising the advantages and minimising the disadvantages of the latter two options—self-insurance and partnering. Instead of thinking of these two options as discrete, they are presented as an insurance range. At one extreme, an MFI insures death risks completely on its own; at the other, the MFI avoids

exposure to death risk entirely by serving as a distribution agent for an insurance company. Depending on the level of risk the MFI is willing to accept, in between there are a variety of insurance activities that an MFI can consider outsourcing to insurers or consultants.

When is Credit Life Insurance an Appropriate Option?

Most of these options are reasonable and practical in certain circumstances. Expecting the group to repay, for example, may be appropriate for lenders offering small loans with a compensating savings requirement through large borrower groups like a village bank. After liquidating the savings, the surviving group members can usually cover the remaining balance without undue hardship since it is a small amount divided among 20 or 30 people. At the other extreme, in a smaller solidarity group, without a compensating savings balance, group members may find it difficult to repay the debts of their deceased colleague, especially as loan sizes get larger or if the loan was recently disbursed.

For smaller MFIs who only experience a handful of client deaths per year, the efforts involved in creating and offering insurance may be hard to justify, especially if they offer small loans. Indeed, insurance might be a cumbersome way to deal with bad debts. If these organisations find it inappropriate to collect the deceased's payments from the group or claim from the estate, then it might be simpler to write off the loans rather than going to the trouble of creating insurance. In these circumstances, it is recommended that they carefully track the losses associated with death to ensure that these costs are kept at reasonable levels that are covered by the interest rate.

The use of insurance to reduce vulnerability to death risk may be most appropriate for medium to large MFIs, particularly those that offer larger loans or are operating in environments with volatile mortality rates due to natural disasters, AIDS and other epidemics. The conditions of when insurance is more or less appropriate are summarised in Table 0.1.

Credit life insurance is probably most appropriate for medium to large MFIs, particularly for individual lenders or MFIs with larger loan sizes. It may be appropriate for smaller MFIs or organisations with small loan sizes if they view Credit life insurance as a stepping stone that lays the foundation for offering more customer-focused insurance products.



Table 0.1 Conditions for Developing Insurance to Cope with Death Risks

Conditions for Credit Life Insurance	Conditions for Other Responses to Death Risks
<ul style="list-style-type: none"> ● Medium and large MFIs ● MFIs with larger loans (or whose loan sizes are increasing) ● Environments with volatile mortality rates and/or experience frequent occurrences of covariant death ● Individual lenders who do not require collateral (or do not want to seize collateral from the estate) ● Organisations that want to offer additional insurance products in the future 	<ul style="list-style-type: none"> ● Smaller organisations ● MFIs with small loan sizes ● Regions with small and predictable mortality rates ● Use of large borrower groups ● Lending methodologies that require compensating savings balances

Increasing Customer Value

The discussion thus far has focused on the use of insurance to protect the MFI from the risk of borrowers dying. For MFIs, reducing the risk of death-related default is not the sole or even the primary motivation for offering insurance. Most organisations want to offer insurance to fulfil their social mission to alleviate poverty and reduce the vulnerability of low-income persons.

Providing insurance to cover the outstanding balance of a loan largely protects the MFI without providing tangible support to the beneficiaries. While survivors might appreciate the fact that they do not have to pay for the debts of the deceased, this type of coverage does not bestow meaningful assistance during their time of need.

Credit Life insurance, which covers the outstanding balance of the loan, is however a useful starting point for an MFI. Once the organisation develops effective systems and procedures for offering **Credit Life**, then it can build on that foundation by offering benefits that more effectively reduce the vulnerability of low-income households.

Besides **Credit Life** (and **Credit Disability** for which the benefit is also limited to the outstanding balance of the loan), this manual includes detailed descriptions of three insurance products that offer greater customer value:

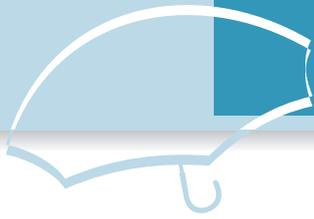
1. **Additional Benefit**: This term life product provides designated beneficiaries with a payout that assists them to cope with their hardship.
2. **Additional Lives**: When a member of a borrower's household dies, it can adversely affect the client's ability to repay. A policy that provides payouts if a borrower's dependant dies will enhance the protection for both the client and the MFI.
3. **Continuation**: Clients are only eligible for the policies described above when they have a loan, but people do not typically like remaining in perpetual debt. To provide death coverage to persons who prefer not to borrow again (at least not right away), former clients can purchase a **Continuation** policy.

Another factor that influences the value that customers derive from an insurance product is whether the person chooses to purchase the product. It is assumed that **voluntary products** offer greater customer value than **mandatory** ones, but they are more difficult, risky, and costly to provide. Of the products highlighted in this manual, the two that provide coverage for the outstanding balance of the loan (**Credit Life** and **Credit Disability**) are mandatory, the **Additional Benefit** product can be either, and the **Additional Lives** and **Continuation** policies are voluntary.

It should be noted that all of these products are designed for borrowers (or former borrowers, in the case of the **Continuation** policy) of a microfinance institution. These products are not intended for the general public. They are also only available for short terms, either the length of the loan term or one year, whichever is shorter. These two conditions significantly increase the manageability of the products, and decrease the risk associated with providing them.

Although these products are designed for the clients of an MFI, and they are intended to be delivered concurrently with loans to maximise efficiencies, it is critical that the finances and management of the insurance business are separated from the MFI's savings and credit activities. The rationale for this separation is summarised in Box 0.1.

Two key conditions enhance the manageability of the five products presented in this manual: 1) the products are only available to borrowers, not the general public; 2) they are for short terms, one year or less.



The Separation of Banking and Insurance

0.1
BOX

The Separation of Banking and Insurance

During the late 1920s and 1930s, many banks all over the world went bankrupt, including more than 10,000 in the United States alone. Many of these banks had invested deposits in the stock market and when it crashed in 1929 they were unable to repay their depositors. Some banks had provided loans that borrowers used to speculate on equities and real estate in the hope of cashing in these rapidly expanding markets. When these markets crashed, borrowers were unable to repay their loans. When a few banks were unable to repay their deposits, panic ensued among many depositors who rushed to banks to withdraw their savings. Unable to repay the deposits at such short notice, banks closed at a rapid rate. Vast numbers of people lost their savings. As a result, banks became unpopular and, for a short period, bank robbers like John Dillinger and Bonnie and Clyde became folk heroes.

Banks were seen to have behaved recklessly with people's savings. To improve public confidence in the financial system, two US legislators, Carter Glass and Henry Steagall, developed regulations that prevented banks from investing in the stock market. The Glass-Steagall Act of 1933 also created the system of deposit insurance whereby the Federal Government guaranteed the savings up to a ceiling amount in federally insured banks. Congress regulated further separation in 1956 with the passage of the Bank Holding Company Act, which created a barrier between banking and insurance. While banks were allowed to sell the insurance products of insurers, they were not permitted to assume the risk of underwriting insurance policies.

These regulations were repealed in 1999, however there remains much wisdom in the separation of banking from investing and insurance, especially in developing financial markets, especially for microfinance institutions, for the following reasons:

Portfolio volatility: MFIs typically maintain large portfolios of unsecured loans that are prone to delinquency volatility. A spike in bad loans can have a contagious effect, making the loan portfolio an inappropriately risky place to invest insurance premiums.

New industry risks: Microinsurance is a new industry that serves a market that traditional insurers have considered too risky. Without a long history of well-documented claims patterns, it is prudent for microinsurance providers to maintain large reserves.

Covariance: Many of the same risks affect an individual's loan repayment will also result in insurance claims. When those risks strike a number of borrowers at the same time, portfolio quality will plummet while claims will skyrocket. The combined effect on an organisation that mixes its credit and insurance risk could be devastating.

Temptation: An MFI experiencing portfolio quality problems may be tempted to use its insurance reserve to cover loan losses. Similarly, a microinsurer with unexpected claims might consider paying benefits from deposits. Such actions will lead an organisation quickly down the slippery slope to financial ruin. By using deposits or premiums to cover losses instead of investigating and solving the root cause of the loss, one is simply shifting deck chairs on the Titanic.

Pricing: A clear separation of all the costs associated with the delivery of savings and credit from insurance is necessary to price products based on their actual costs. An organisation that commingles its banking and insurance activities is unlikely to disaggregate the income and expenses associated with each business, and therefore may be generating unidentified losses.

Mentality: Finally, banking and insurance services require very different attitudes and tolerances toward risks. Unless these two businesses are clearly separated, an MFI will not be able to develop an appropriate insurance culture.

Organisation of this Manual

This manual is divided into seven chapters. The first chapter introduces fundamental insurance concepts that are critical to understand when designing an insurance product, particularly short-term life insurance policies. Chapter 2 describes the prerequisites that need to be in place for an MFI to offer insurance, including the institutional capacity, confirmation that there is indeed demand for insurance, and assurance that the provision of insurance is acceptable to regulatory authorities. The third chapter presents the five insurance products covered in this manual and uses the framework presented in the first chapter to outline the product design. Chapter 4 explores operational issues involved in managing an insurance product, including human resource management, internal controls, research and development, and insurance sales techniques. Chapter 5 introduces the concept of outsourcing and explains how MFIs can collaborate, partner or contract technical expertise and administrative functions to offer insurance efficiently and with less risk. The final two chapters provide detailed guidelines on the integration of an insurance



product into an MFI, including accounting, financial management and performance monitoring (Chapter 6), and product pricing and experience rating (Chapter 7).

Although this manual looks long, it is in fact highly simplified. Whole manuals of greater length and complexity exist on pricing insurance products, accounting, marketing insurance, etc. Insurance provision is a complex activity. Seemingly small errors (like minor price adjustments or changes to waiting periods) can place the entire MFI in jeopardy. Sound assessment of institutional capacity is vital before entering the insurance business. A conservative approach to the insurance business is important. If the MFI has any doubts about its capacity, it should outsource.

KEY TERMS and CONCEPTS



- ✓ *Bank Holding Company Act*
- ✓ *Contagious delinquency*
- ✓ *Covariant risk*
- ✓ *Credit life insurance*
- ✓ *Customer value*
- ✓ *Death risk*
- ✓ *Estate*
- ✓ *Mandatory and voluntary insurance*
- ✓ *Outsourcing*
- ✓ *Public image*
- ✓ *Risk*

INSURANCE FUNDAMENTALS

The purpose of this chapter is to:

- Describe characteristics of events that are insurable and those that are not.
- Identify potential insurance complications and the means to counteract them.
- Define and illustrate the insurable interest.
- Outline the principal design features of an insurance policy.
- Discuss the process of premium setting and the claims experience.
- Demonstrate calculating a risk premium and estimating the total premium in simple scenarios.

What is insurance? The common usage of the term “insure,” as a means to protect from harm, causes some confusion regarding the definition of insurance as a financial service. There are many ways to protect from risk. In rural areas, people build up stocks of grain and animals; where people have access to deposit-taking services, they may save a risk-buffer in cash. Others may rely on the generosity of family or friends, or may borrow money when struck by an emergency.¹ While these are all ways to protect against risk, they are not insurance.

Insurance reimburses an individual² for some or all of a financial loss that is linked to an unpredictable event or risk. This protection is accomplished through a pooling mechanism whereby many individuals who are vulnerable to the particular risk are joined together into a **risk pool**. Each person pays a small amount of money, known as a **premium**, into the pool, which is then used to compensate the unfortunate individuals who do actually suffer a loss. Insurance reduces vulnerability by replacing the uncertain prospect of large losses with the certainty of making small, regular premium payments. This risk-pooling concept makes insurance an efficient means for protecting against certain types of risk; it also causes complexities in designing and delivering insurance products.

¹ For more examples of other means of managing risks, see Sebstad and Cohen (2000), “Microfinance, Risk Management and Poverty,” USAID’s AIMS Project. www.mip.org.

² The insured unit could also be a company or a household. Throughout this manual, however, the focus is on the individual client of an MFI.



An insurance product has to explicitly identify the following four elements:

1. **Insured Event:** The trigger event (e.g., death of the policyholder) that leads to the payment of a **claim**.
2. **Benefit Amount:** The amount of the claim that becomes payable upon the occurrence of the insured event (e.g., a fixed sum of US\$400 or the outstanding balance of a loan); the risk pooling mechanism makes it possible for the benefit amount to be much greater than an individual's premium payments.
3. **Beneficiary:** The party that receives the benefit amount if the insured event occurs.
4. **Term of Cover:** The period within which the insured event must occur for a claim to become payable.

These four items must all be addressed in an insurance **policy**, which is the legal contract between an insurer and its client the **policyholder** (who is sometimes referred to as the **insured**). This chapter explains these four elements and it introduces basic insurance concepts. The purpose of this chapter is to lay a foundation of understanding about insurance that will be applied in subsequent chapters.

KEY TERMS and CONCEPTS



- ✓ *Beneficiary*
- ✓ *Benefit amount*
- ✓ *Claim*
- ✓ *Insurance*
- ✓ *Insured*
- ✓ *Insured event*
- ✓ *Policy*
- ✓ *Premium*
- ✓ *Risk pooling*
- ✓ *Policyholder*
- ✓ *Term of cover*

1.1 The Insured Event

It is necessary to clearly define the event or trigger that gives rise to a potential claim. The insurer and the policyholder need to have the common understanding of that definition. This section describes the characteristics of an insurable event and then it discusses insurance complications including adverse selection, fraud, moral hazard and covariant risk.

Characteristics of an Insurable Event

To be insurable, an event has to have certain characteristics:

- **Randomness:** The event must occur unpredictably. If the event is predictable, then planned saving is a more appropriate means of protecting oneself.
- **Low Chance of Occurring:** There should be a low probability that event will occur within the period of insurance. If it were likely to occur to most members in the risk pool within the period, then the cost of the insurance would be very high—in fact close to the actual loss covered.
- **Independent:** The occurrence of the insurable event should be statistically independent from individual to individual. In other words, the chance of the event happening to one individual is not affected by the fact that it has happened to another.
- **Uncontrollable:** The occurrence of the event should not be under the direct control of the insured or any other related party, as far as possible. If it is, then the individual could trigger a claim to get the benefit.
- **Adverse Financial Consequences:** The insured event must give rise to a financial loss for the individual—the intention of the insurance is to provide protection against this loss. If the insured party does not suffer a financial loss, there is no need for them to receive a financial benefit. This financial concern is referred to as the **insurable interest**, and is more fully discussed in Section 1.2.
- **Unequivocal:** It should be easy to determine whether the insured event has occurred or not. If the event's occurrence cannot be easily proven, insured individuals could make false claims.

Insurance Complications

Ideally, insured events should meet the above criteria. In practice, however, things are seldom so simple. The provision of insurance is associated with several complications including adverse selection, fraud, moral hazard and covariant risk.

Adverse Selection

In the context of insurance, adverse selection (also known as **anti-selection**) is the tendency of persons who are likely to experience the event to purchase an insurance policy. For example with dental insurance, adverse selection occurs

when people who know they need dental work apply for and obtain dental insurance. Adverse selection also occurs when people with a low chance of suffering the insured event opt out because insurance provides them with poor value for their money. This situation can have a destabilising effect on an insurance system—if only people expecting to have dental treatment receive insurance, the risk pooling mechanism cannot work.

Adverse selection is primarily a problem when the policyholder has a choice around the timing and amount of insurance purchased, and hence can enter the system when his or her risk is poor.

To control adverse selection, insurers may screen risks. The process of **screening** prospective policyholders, also known as **underwriting** (see Box 1.1), is intended to control the risks that enter the risk pool. For example, applicants may be checked by a doctor to ensure that they are not suffering from a severe medical condition, or be required to sign a “declaration of health” asserting their good health. High-risk individuals may be excluded or charged more.

For MFIs that provide insurance to microenterprise borrowers, the fact that they are running businesses suggests that they are less likely to be sick, disabled or close to death than the general population. This effect is called **positive selection**, or just selection, and leads to a “select” group in the risk pool.

Two other means of controlling adverse selection are through exclusions and waiting periods.³ A health insurance policy, for example, might include an **exclusion** for **pre-existing conditions**—health problems that the person had before purchasing the policy. With life insurance, a **waiting period** of a month or two between the time when policyholders begin paying premiums and when the coverage is applicable reduces the risk that someone who is about to die will purchase a policy.

³ Compulsory insurance, discussed in Section 1.3, is an additional means for controlling adverse selection.

*Underwriting from Lloyd's of London*1.1
BOX

Underwriting from Lloyd's of London



Reprinted with permission from Lloyd's

Lloyd's Coffee House 1691.

The term “underwriting” originates from one of the oldest current insurance markets in the world: Lloyds of London. Lloyds was originally a coffee shop. Commercial shipping companies that sought insurance for their vessels would place the details of the ship and its cargo on a chalkboard. Interested individuals with the funds to insure risks examined the board and wrote their names under the ship’s details (under-writing), indicating that they had assessed the risk and were willing to take it.

Fraud

With adverse selection, individuals are pursuing a perfectly sensible—and legal—path of self-interest. They opt in or out according to their assessment of their risk profile and the relative value of insurance. In contrast, fraud arises from deliberate misrepresentation by the client to the insurer. Examples of fraud include claiming that an insured event has happened when it has not or providing false answers to the insurer’s screening questions. One way to manage fraud is by using **claims verification methods**, such as checking that that claim event has actually happened (is there a body?!). Box 1.2 provides some examples of how microinsurers in the Philippines control for fraud and adverse selection.

Controlling Adverse Selection and Fraud in the Philippines

1.2 BOX

Controlling Adverse Selection and Fraud in the Philippines

Two financial co-operatives in the Philippines, Paco Soriano and SAMULCO, have learned a number of lessons about controlling risks like fraud and adverse selection.

Both organisations have clear operational policies to ensure that claims are verified—for a life insurance claim, for example, they require a death certificate. At Paco Soriano, it is also customary for co-op managers and board members to go to the wake of departed members. This allows them to validate claims, though this is not the primary motive for their attendance.

Incidents of microinsurance fraud have been rare at SAMULCO, but they do happen. General Manager Daniel Corral recalled one example of a member who lied on his health certificate when he applied for a loan. He had a terminal illness when he enrolled in SAMULCO's credit-life scheme. After the member's death, his sister insisted that the co-operative cover her brother's outstanding loan. The co-operative, however, was able to prove that the member knew he was terminally ill when he acquired the policy and failed to disclose this, and therefore the next of kin was responsible for the debt of the deceased.

To control adverse selection, the co-operatives recently incorporated waiting periods for their life insurance schemes because of experience with a few members dying soon after applying for coverage. Another control for adverse selection is the requirement that new applicants undergo a health examination or present a health certificate. The co-operative also modified its benefit schedule so that only long-standing members would be eligible for better benefits.

Adapted from Soriano et al (2002).

1.2

Moral Hazard

Moral hazard occurs when the insurance protection creates incentives for individuals to cause the insured event. With life insurance, for example, there may be circumstances when policyholders commit suicide so that their beneficiaries would receive some money; or the beneficiary could even murder the insured to receive the benefit. While these notions may seem far-fetched, Box 1.3 demonstrates that insurers need to consider such possibilities.

Moral hazard also applies to circumstances where insurance creates incentives for policyholders to behave in reckless or undesirable ways that increase the likelihood that the insured event will occur. For example, property insurance for livestock might discourage policyholders from vaccinating or seeking appropriate medical treatment for their animals.

Moral hazard is managed through exclusions that remove the financial gain from the undesirable action. For example, most insurance policies do not pay benefits if the injury, disability or death is self-inflicted.

Co-payments for health insurance policies and **deductibles** for property insurance also help to control moral hazard. For example, a health insurance provider might pay 80 percent of medical costs, while the policyholder's co-payment covers the remaining 20 percent. Similarly, a US\$500 deductible on car insurance means that the insurer will pay for the balance of claims that exceed that amount. Co-payments and deductibles discourage moral hazard behaviour since policyholders incur some costs associated with making a claim.

Moral Hazard with Life Insurance

1.3 BOX

Moral Hazard with Life Insurance

“Black Widow” trial closes: Woman faces charges

The Upper Marlboro woman dubbed the “Black Widow” after her two husbands and one boyfriend were slain was an “innocent victim” forced to live with tragedy, defense attorneys argued Wednesday at the close of her trial for illegally collecting insurance payments on the dead men.

Josephine Gray, 55, is charged with mail fraud, wire fraud and aiding and abetting for allegedly illegally collecting life insurance payments after the murders of her husbands and boyfriend.

Prosecutors said Gray collected US\$16,000 in life insurance after the death of her first husband, Norman Stribbling and US\$51,000 after the death of her second husband, William “Robert” Gray. Both men died in Montgomery County. Gray also is accused of collecting US\$96,000 following the 1996 death of her boyfriend, Clarence Goode, in Baltimore County. According to court documents, Gray enlisted the help of each successive husband or boyfriend to commit murder on her behalf.

Defense attorneys said Gray was innocently collecting the insurance money she believed she was entitled to and using the funds to try to put her life back together after each murder. “Josephine Gray, innocent, does what she feels she is entitled [to do],” said her attorney, Mike CitaraManis. “This is not a case of a woman who is out to get every last cent of the insurance proceeds.”

But prosecutors said Gray used the money she got after Stribbling's murder to buy a house and a Cadillac. Assistant U.S. Attorney James Trusty said Gray had “US\$16,000 worth of motive” to kill Norman Stribbling. “Josephine Gray wanted her husband dead - not divorced, but dead,” Trusty said. “This man never had a chance.”

Covariant Risk

Covariance is the non-independence of risks amongst risk pool members. It exists whenever one event can give rise to multiple claims. For example people who live in a region prone to earthquakes are likely to experience the same risk at the same time. Covariant risk can result from epidemics or other natural disasters.

CitaraManis said Gray was the target of innuendoes, rumor and suspicion following each death, although no evidence was discovered that put Gray at the scene of any of the murders. “She is a survivor,” CitaraManis said. “She knew and expected police once again would focus on her [after each death].”

According to court documents, Stribbling was found shot to death in his car on River Road in Poolesville in March 1974. Josephine Gray and then-boyfriend William Gray were charged in the death later that month, but the charges were dropped after two key witnesses disappeared. Josephine Gray and William Gray later married.

In November 1990, William Gray was found shot to death in his Germantown home after months of complaining to police that his wife was trying to kill him. Prosecutors said William Gray lived in fear of his wife and knew she was trying to kill him. “He spent months in terror as the picture became clearer and clearer that he would be killed,” Trusty said.

At the time of William Gray's death, Josephine Gray was working as a janitor at Richard Montgomery High School in Rockville and allegedly was having an affair with Clarence Goode. Goode and Josephine Gray later were charged in William Gray's death, but charges were dropped after witnesses declined to testify.

In 1996, Goode, who was also Josephine Gray's second cousin, was shot and killed in Baltimore.

By Kelly Smith and Eric Hartley, Montgomery Journal

Adopted from an article by www.jrnl.net/news

1.3

These events give rise to an extraordinary number of claims and may bankrupt the insurance pool. **Reinsurance** (discussed in Section 1.6) can help limit this problem. **Exclusions** also help to control covariant risk; many policies exclude losses due to wars, riots, and natural disasters or “acts of God”. See Box 1.4 for an example of how covariant risk has affected the insurance industry.



Covariant Risk, Reinsurance and 9/11

1.4
BOX

Covariant Risk,
Reinsurance and 9/11

Financial Recovery in the Reinsurance Industry Post 9/11

Among the repercussions—most significantly, the loss of approximately 3,000 human lives—family, friends, colleagues and loved ones—the resilient reinsurance industry immediately stretched to its limits upon realization of the massive loss it was about to sustain.

“The terrorist attacks of September 11, 2001 produced insured losses larger than any natural or man-made event in history,” Robert Hartwig, Ph.D., senior vice president and chief economist of the Insurance Information Institute (I.I.I.) recently stated in his analysis “September 11, 2001: The First Year.”

“Total life and non-life insurance losses are expected to reach at least US\$40 billion,” added Hartwig. “The losses sustained by the insurance industry were unprecedented in virtually every respect, producing catastrophic losses not only in property coverages, but also for the first time

KEY TERMS and CONCEPTS



- ✓ Adverse financial consequences
- ✓ Adverse selection
- ✓ Claim verification
- ✓ Co-payments
- ✓ Covariant risk
- ✓ Deductible
- ✓ Exclusion
- ✓ Exclusions
- ✓ Fraud
- ✓ Independent
- ✓ Low chance of occurring
- ✓ Moral hazard
- ✓ Positive selection
- ✓ Pre-existing condition
- ✓ Randomness
- ✓ Repayment
- ✓ Screening
- ✓ Uncontrollable
- ✓ Underwriting
- ✓ Unequivocal
- ✓ Waiting period

in life insurance, disability and workers' compensation lines. Aviation and liability insurers also suffered their worst-ever losses stemming from a single event.”

“September 11th changed the insurance world entirely,” said Irmgard Wallner, press officer at Munich Re. “Claims reached dimensions which had previously never been considered possible.”

According to statistics supplied by I.I.I., Morgan Stanley and Benfield Research, Lloyd's of London sustained the greatest amount of losses from the attacks at US\$2,913 billion, as of July 19, 2002. Munich Re and Swiss Re followed close behind with losses of US\$2,442 billion and US\$2,316 billion, respectively. US-based reinsurers The St. Paul Companies and American International Group Inc. suffered respective losses of US\$941 million and US\$820 million.

Adopted from an article by Cynthia Beisiegel, The Insurance Journal, Sept. 10, 2002, www.insurancejournal.com

1.4

1.2 Benefit Design: How Much is Paid to Whom?

An insurable event causes a financial loss. It is important that the prospective beneficiary is the same person who suffers the loss. In other words, the person who receives an insurance benefit must have an **insurable interest** in the insured event. Issuing policies to parties with no insurable interest can create significant moral hazards. Property insurance on a home, for example, can only be sold to the homeowner because he or she will experience the financial loss if the house is damaged.

The **benefit amount** should be consistent with the insurable interest. Allowing coverage above the insurable interest creates fraud and moral hazard risks since the client would benefit from the insured event by gaining more from the payout than the actual loss suffered.

While the insurable interest is the main determinant of the benefit amount, affordability and market practice also have an influence. Since higher premium payments are required for larger benefit amounts, some prospective clients may not be interested in coverage for the full insurable interest. Conversely if clients view a benefit as desirable, insurers may compete to attract new



policyholders by offering extensive coverage. In this case, an insurer may be tempted to match the benefit levels offered by its competition even if the levels of cover are unrealistic.

Having identified the insured event and the benefit amount, the next step is to identify the **beneficiary**—the person who has the legal claim to the benefit. The beneficiary is generally the person or institution with the insurable interest. In the case of life insurance, the beneficiary should be a close family member, someone who will experience a financial loss if the policyholder dies.

KEY TERMS and CONCEPTS



- ✓ *Beneficiary*
- ✓ *Benefit amount*
- ✓ *Insurable interest*

The accident insurance policy described in Box 1.5 provides an example of some key terms introduced in the sections above. It is interesting to note how specific and graphic the insurer is in defining the insured event. This specificity is necessary to minimise disagreements of interpretation that might otherwise occur in a **claims settlement**. The exclusions, intended to protect the insurer from moral hazard and covariant risks, are also quite specific.

US\$1,000 Accident Insurance for All Members

BOX
1.5

US\$1,000 Accident
Insurance for
All Members

As a member of the Credit Union age 18 or over, you are eligible for US\$1,000 of Accidental Death and Dismemberment Insurance. Premiums for this Basic Coverage will be paid by your Credit Union. THERE IS NO COST TO YOU. In order to receive your Certificate of Insurance, COMPLETE THE ENCLOSED APPLICATION FORM AND MAIL. (In New York and North Carolina coverage is reduced 50% at age 70.)

This summary explains in general terms the insurance described, but in no way changes or affects the insurance afforded under such Policy as actually issued. All coverages are subject to actual Policy conditions and exclusions. Each member participating in the plan will receive a Certificate of Insurance describing the exact coverage and benefits provided.

Benefit Amount

When covered injury results in any of the following losses within one year from the date of the accident (the insured event), the Company will provide, in one sum, the following amounts:

- Loss of life US\$1,000
- Loss of two members (hand, foot, or eye) US\$1,000
- Loss of speech and hearing US\$1,000
- Loss of entire sight in both eyes US\$1,000
- Loss of entire sight in one eye US\$500
- Loss of one hand or foot US\$500
- Loss of speech or hearing US\$500
- Loss of thumb and index finger on same hand US\$250

The loss of a hand or foot means complete severance through or above the wrist or ankle joint; for thumb or index finger, it means complete severance through or above the metacarpophalangeal joints. The loss of sight of eye means irrecoverable loss of entire sight. The loss of speech means complete and irrecoverable loss thereof; for hearing it means complete and irrecoverable loss of hearing in both ears.

Who is Eligible?

All members of the Credit Union age 18 or over when applying, are eligible for coverage. Every member of the Credit Union age 18 or over who completes and returns an application will be accepted.

Individual Terminations

As long as you remain a member of the Credit Union and the Master Policy remains in force, your coverage will be renewed. (In New York, Group Master Policy is renewable annually.)

General Exclusions

The Policy does not cover any loss caused by or resulting from; suicide or self-destruction or any attempt thereof; declared war or any act of war; committing or attempting a felony or illegal act; riding in any aircraft or device for aerial navigation except as a passenger for transportation only (not as a pilot or crew member) in an aircraft certified as airworthy by the appropriate authority of the country of its registry.



1.3 Design Features

Besides determining the insured event and the benefit design, insurance products also have to specify the policy term and whether the product is voluntary or mandatory.

Policy Term

The policy term is the period within which the insured event must occur for a benefit to become payable. Possible terms include:

- **Fixed Term:** The insured event must happen within a specific period of time, such as the duration of a loan, one year or ten years, to trigger payment. This cover is usually called **term insurance**.

- **Whole Life** cover is provided for the balance of the policyholder's lifetime.

Insurance contracts for long periods of time imply lengthy financial promises contingent on uncertain events. **Actuarial science** deals with the forecasting and management of this risk; great expertise in predicting the future is needed to successfully implement these products. In most countries, long term insurance is strongly regulated to guarantee that insurers meet their obligations. Financial reserves requiring complex valuation must be accumulated and invested to ensure long-term solvency.

To overcome the challenges of long-term coverage, it is possible to offer a **renewable term contract** where cover is provided for a short term, only to be renewed upon expiry for another short term. Renewable term contracts give insurers the freedom to alter the conditions if they are losing money. This type of contract is particularly relevant for new insurers, those without access to quality data, or insurers operating in unpredictable macroeconomic conditions.

Another method of changing the term is through insurance **options**, which allow policyholders to alter features of their coverage at defined times. A common type is the continuation option, whereby policyholders can continue an insurance cover after the original period has concluded.

Compulsory vs. Voluntary Cover

Insurance can either be voluntary or mandatory. For example, employers may expect that all employees enrol in their health insurance scheme; lenders may require borrowers to purchase a credit-life policy; or the government may compel car owners to have third-party liability cover. The voluntary approach

allows consumers to choose the amount, term and type of insurance that they want. There are advantages and disadvantages to both scenarios.

Compulsory coverage deprives the policyholder of certain purchase choices concerning the timing and quantity of insurance. The employee is automatically enrolled in the health scheme, for example, upon signing an employment contract. The benefit amount may also be predetermined, which can become problematic with higher levels of cover if individuals are forced to purchase protection that they do not want or need. The misalignment of interests may provoke resentment, and even increase the risk of fraud or moral hazard as individuals try to gain value for their money. Compulsory schemes may also be subject to abusive pricing by the insurer, since the insured has no choice but to purchase the cover.

On the other hand, compulsory insurance creates three significant advantages:

- **Control of Adverse Selection:** The ability of individuals to take out insurance just when they know that they are about to need it is reduced by linking the timing of insurance to another event. Furthermore, low-risk persons do not have the option of leaving the pool. With voluntary insurance, it is quite possible that the only persons purchasing a policy are those who expect the insured event to occur.
- **Administrative Savings:** Compulsory schemes are easier and cheaper to manage because administrative systems are simpler than for voluntary, flexible insurance products.
- **Limited Sales Expenses:** Instead of having to sell individual policies, compulsory insurance allows insurers to reach large numbers of persons without major **acquisition costs**.

KEY TERMS and CONCEPTS



- | | |
|---------------------|------------------------|
| ✓ Acquisition costs | ✓ Options |
| ✓ Actuarial science | ✓ Renewable term cover |
| ✓ Claims settlement | ✓ Voluntary cover |
| ✓ Compulsory cover | ✓ Term insurance |
| ✓ Fixed term | ✓ Whole life |



1.4 Premiums: Paying for Insurance

Premium is to insurance as interest rate is to a loan—the premium is the amount paid by the client for insurance coverage. This section discusses different ways that premiums can be structured and outlines the actuarial process of setting premiums. While actuarial pricing is quite complicated, it is important for microinsurance providers to understand the basic principles even if they outsource the pricing responsibilities to others. Basic premium principles are presented here and covered in more detail in Chapter 7.

Premium Payment

Premiums come in two basic varieties: single and recurring. **Single premiums** are usually paid at the start of a contract and they cover the entire term. Single premium methods are easy to administer; there is only one payment transaction and there is no chance that the client will default on the premium. The disadvantage is that the client may find a single premium unaffordable, especially if the insurance contract is long. The insurer also does not have flexibility to alter the premium level if claims turn out to be much higher than expected.

Recurring premiums are paid on a regular basis, such as annually or monthly, during the policy term. The regular collection of premiums involves additional transactions costs for both the client and the insurer, but the size of the payment may fit better into the client's cash flow. Recurring premiums are more expensive than single premiums, all other things being equal, for two reasons: a) the insurer incurs higher administrative costs in collecting the premiums; and b) it forgoes some interest income on the premiums that it could earn if it received payment as an upfront lump sum. For long-term policies, recurring premiums can be designed with variable rates to allow insurers to make adjustments as necessary.

With recurring premiums, insurers face the risk that the client will default on the premium and the coverage will lapse. **Lapsed coverage** is the termination of the policy because the client stops paying the premiums. The insurer usually cancels the coverage after a **grace period** in which the client is allowed to come up-to-date with premiums. Since many of the costs of an insurance policy are frontloaded, lapsed coverage is an additional concern because, if policies do not run long enough, insurers will not be able to recoup their set-up expenses.

A third alternative is a combination of the two: a **recurring single premium**. This arrangement applies to the renewable term insurance described above, whereby premiums are paid for through a series of back-to-back, annual (or other period) payments. Neither the rates nor the benefits are fixed beyond the

period covered by the single premium. If further cover is desired, it is offered at the terms applicable at the renewal date.

Premium Rates

Premiums are most often expressed as rates or percentages. It is quite difficult to compare premium rates, however, unless two critical factors are the same: a) the period for which cover is granted and to which the premium applies; and b) the unit to which the rate is applied to arrive at the actual amount to be paid. These differences are highlighted in Box 1.6.

Setting Premiums

Setting premium rates for insurance, also known as **ratemaking**, is similar to setting interest rates for loans. A loan interest rate has to cover four sets of costs: a) operating expenses, b) loan losses, c) the cost of funds, and d) the capitalisation rate. Insurance premiums can be broken down into similar components, with one big difference: the equivalent of the allowance for loan losses is the **risk premium**—the cost of claims expected during the period. This aspect is examined in detail since insurance methods specialise in the calculation of this rate.

The Risk Premium

For an insurance product to be sustainable (let alone profitable), the risk or pure premium must be sufficient to cover the cost of claims. The theoretical risk premium for an insurance benefit, therefore, is equal to the expected cost of claims. This expected cost of claims is estimated actuarially for an insurance product based on two components: the amount to be paid (the benefit) and the probability that the event will occur. The risk premium, or expected claims cost, is the product of these two:

$$\text{Risk premium} = \text{Benefit amount} \times \text{Probability that the insured event occurs}$$

Premiums are frequently expressed as proportions of the benefit amount, or premium rates, rather than as absolute numbers, and they applied to a specific time period. The time period affects the premium by changing the probability of the claim event occurring. With life insurance, for example, a person is more likely to die during a 10 year period than during a single year. Box 1.7 provides an example of a very basic risk premium calculation.

A Comparison of Three Premium Rates

1.6
BOX

Consider these three different premiums:

- 1) US\$2.50 per policy for a death benefit of US\$200 for one 4-month loan term
- 2) 1 percent of the disbursed loan for credit life cover for one 4-month loan term
- 3) 3 percent of the death benefit for life cover for one year

In the first case, the premium rate is per policy. Irrespective of the loan size, the premium is a constant US\$2.50. This is appropriate when the benefit, in this case US\$200, does not vary from policy to policy.

In the second case, the premium amount depends on the loan size, and this is appropriate to policies where the insured benefit is directly related to the loan amount such as a credit life policy.

Note that both of these premium rates apply to a loan term, which in this case is four months. If premium rates remain unchanged, the premium for a year of cover in the first case is three times US\$2.50, or US\$7.50. In the second case, if a client takes three successive 4-month loans of US\$200, US\$250 and US\$300, the premium for a year of cover is 1 percent of the sum of these amounts i.e., US\$7.50. Although the monetary amounts are the same in each case, the calculation of the premiums is very different.

In the third case, the premium is expressed as an annual rate of the benefit. The cost for US\$200 coverage for one year in this case is 3 percent of US\$200, or US\$6. Comparing this and the second case, the insured benefits are different. With credit life (case 2), the benefit is the outstanding loan at the time of death, which will vary depending on how much of the loan has been repaid. Case 3, however, has a fixed death benefit that pays the same amount whenever the death occurs, regardless of the outstanding loan. A 4-month premium rate in the third case can be roughly estimated as one third of the annual rate, or 1 percent. But it is not valid to compare this 1 percent to the 1 percent in the second case, since they are 1 percent of different items.

In case 2, the coverage is equal to the outstanding loan balance; while in cases 1 and 3 the coverage is constant.

A Comparison of Three Premium Rates

1.6

Sample Elementary Risk Premium Calculation

Sample Elementary Risk Premium Calculation

1.7
BOX

Suppose an insurer offers a one-year term policy with a fixed death benefit of US\$50. An individual takes out the insurance, and there is a two percent chance that this individual will die within the next year—in other words there is a two percent chance that the benefit payment will have to be made in the next year. The risk premium for this benefit for one year of cover is therefore two percent times US\$50, which is US\$1.

If the insurer has 100 clients with a similar risk of dying, all with the same benefit amount, it would receive 100 risk premiums of US\$1, or US\$100. Two percent of the 100 clients would be expected to die (i.e. two clients), and the total claims would be two payments of the benefit amount (US\$50 times two, or US\$100). The expected cost of claims is the same as the risk premium.

For the whole group, the risk premium is US\$100 and the total benefit insured is US\$5000 (100 policies at US\$50 per policy). The risk premium rate for the group is $100/5000$, which is two percent of the benefit amount. All other things being equal (which often they are not!), the insurer could charge 2 percent of the proposed benefit as the risk premium for any level of cover, so the premium for a US\$100 benefit would be US\$2.

Risk Premiums for Diverse Risk Pools. In practice, all the individuals in the risk pool will not have the same probability of claiming. This means that each individual will theoretically require a different risk premium. There are two main ways of addressing this issue:

- **Individual approach:** Persons could be charged their own risk premium based on their individual expected claims cost.
- **Group approach:** The total expected claims could be calculated across the whole group and then divided by the benefit amount into equal portions so that each individual pays the same premium rate regardless of their individual probability of claim.

While the individual methodology is most accurate, it requires a significant amount of data and technical capacity to apply it effectively. Group pricing methods are sufficient with basic insurance products, especially since individualised pricing would add significant administrative complications. The crucial factor is that the insurer sets the risk premium so that it covers the expected claims for the entire risk pool. Box 1.8 highlights the difference between the group and individual pricing approaches.

Group and Individual Pricing Methodologies: A Comparison

1.8
BOX

Group and Individual Pricing
Methodologies: A Comparison

Suppose three people participate in a funeral insurance scheme with a fixed benefit of US\$100. Their probabilities of dying in the next year are respectively one percent, two percent and five percent. The total expected claims cost for the group is therefore:

$$(1\% \times \text{US}\$100 = \text{US}\$1.00) + (2\% \times \text{US}\$100 = \text{US}\$2.00) + (5\% \times \text{US}\$100 = \text{US}\$5.00) = \text{US}\$8.00$$

Under the first option mentioned above, they would be charged US\$1.00, US\$2.00 and US\$5.00 respectively. The total premium received would be US\$8.

In a group pricing approach, the rate can be calculated across the risk pool. For example, the expected claims cost is US\$8. The total **sum assured**⁴ is US\$300 for three policies of US\$100. The premium rate is therefore $8/300 = 2.67$ percent across the whole group. Each person would then pay this premium rate times his or her benefit amount (US\$100 in all cases), so each would pay US\$2.67. (Note that the total premium received for the three policies is US\$8.01, with the one cent being a rounding error.)

The insurer therefore receives the same total amount of premium in both cases, which is equal to the expected claims. The difference is that low-risk persons in the group pricing approach are effectively subsidising the premiums of high-risk policyholders.

Probability. The difficult part of setting the risk premium is estimating the likelihood that the insured event will occur. Estimating the probability of death, or some other event like disability, is highly complex. In commercial insurance companies, actuaries undertake this function using advanced statistical and mathematical techniques. The probability of death varies from region to region, by age (older people are usually more likely to die than younger people in a given period), by sex, and by socio-economic and employment status. Probability is also influenced by risk factors such as HIV/AIDS, outbreaks of wars, and the occurrence of floods or other natural disasters.

Contingencies. If estimating the probability of the insured event is very difficult, or if there is great uncertainty associated with the estimate, then there

⁴ The sum assured, also referred to as the **insured benefit**, is the total coverage provided by an insurance product. As the insurance equivalent to the outstanding loan portfolio, the total insured benefit is the sum of all the individual benefits.

may be a contingency margin built into the premium. This reflects the greater risk inherent in the business. The larger the number of persons in the risk pool, the more likely that actual claims will track closely to the expected claims. Because of this **law of large numbers**, a smaller contingency margin is usually required as the risk pool grows.

Other Elements of the Premium

The total premium is determined by the risk premium plus three other elements: a) operational costs, b) contribution to profit and surplus, and c) investment income.

Operational costs include administration, acquisition expenses, actuarial services, the costs of collecting premiums, reinsurance and underwriting, and the costs associated with claims verification and issuing payouts (although not the claims amounts themselves, which are considered in the risk premium). Many of these functions are discussed in subsequent chapters. These expenses may be broken up into ongoing and initial expenses. The latter is usually the higher of the two because it is often more expensive to get a new policy onto the books than it is to maintain it.

For-profit insurers require a **profit margin** built into their premium. Insurers may also require a contribution to **surplus** or capital if this is required to support the insurance business, for example to upgrade computer systems or to expand operations to new regions.

In calculating an interest rate for loans, the cost of capital has to be paid from the interest rate that is charged to borrowers. With insurance, the opposite can occur. If funds are held in reserve for insurance purposes, the **investment income** earned on these reserves can reduce the premium rate. This source of income is a more significant factor for long-term policies and those with single premium payments.

KEY TERMS and CONCEPTS

- | | |
|------------------------|-------------------------|
| ✓ Contingency | ✓ Ratemaking |
| ✓ Grace period | ✓ Reserve |
| ✓ Group insurance | ✓ Recurring premium |
| ✓ Individual insurance | ✓ Risk premium |
| ✓ Law of large numbers | ✓ Single premium |
| ✓ Operational cost | ✓ Sum assured |
| ✓ Policy lapse | ✓ Total insured benefit |
| ✓ Probability | |



1.5 Claims

This risk premium is based on the expected occurrence of the insured event, and hence it is an estimate. The insurer takes the chance that its premium is sufficient to meet the claims, which is known as carrying risk. The emerging claims are considered the insurer's **experience**. If the value of claims is higher than expected, the risk carrier will make a loss and the claims experience is poor.

When evaluating the claims experience, premiums must be compared with their corresponding claims, i.e., all the claims arising from the period of cover that the premiums were intended to fund. It is important to note that claims for a particular insurance period may come months (or even years!) after the end of the period, since claims may not be immediately presented to the insurer. The profitability of a particular group of policies can therefore only be assessed some time later, when all claims have been reported.

The primary measure of claims experience is the **claims ratio**, the actual claims divided by the expected claims (or risk premium). Insurers generally prefer for claims ratio to be less than 100 percent—i.e., actual claims are less than expected claims. Because insurance is concerned with probabilities, however, the fact that a product shows a loss does not necessarily imply that it is wrongly priced—although it might be. Losses may reflect an unfortunate series of events that caused an unexpected rash of claims. If a product consistently shows a loss over time, then there is more reason to suspect that the pricing is wrong.

By the law of large numbers, the greater the number of persons in the risk pool, the smaller the variance in the claims ratio. Claims experience of larger groups is more statistically credible than that of small groups. If a very large risk pool shows a relatively large loss, the product is probably priced incorrectly, whereas the loss on a small portfolio could be due to mere random fluctuations. In a small insurance portfolio, one extra claim might mean the difference between surplus and substantial loss. Covariant risk, where one event gives rise to multiple claims, is a particular danger for small insurance portfolios, as described in Box 1.9.

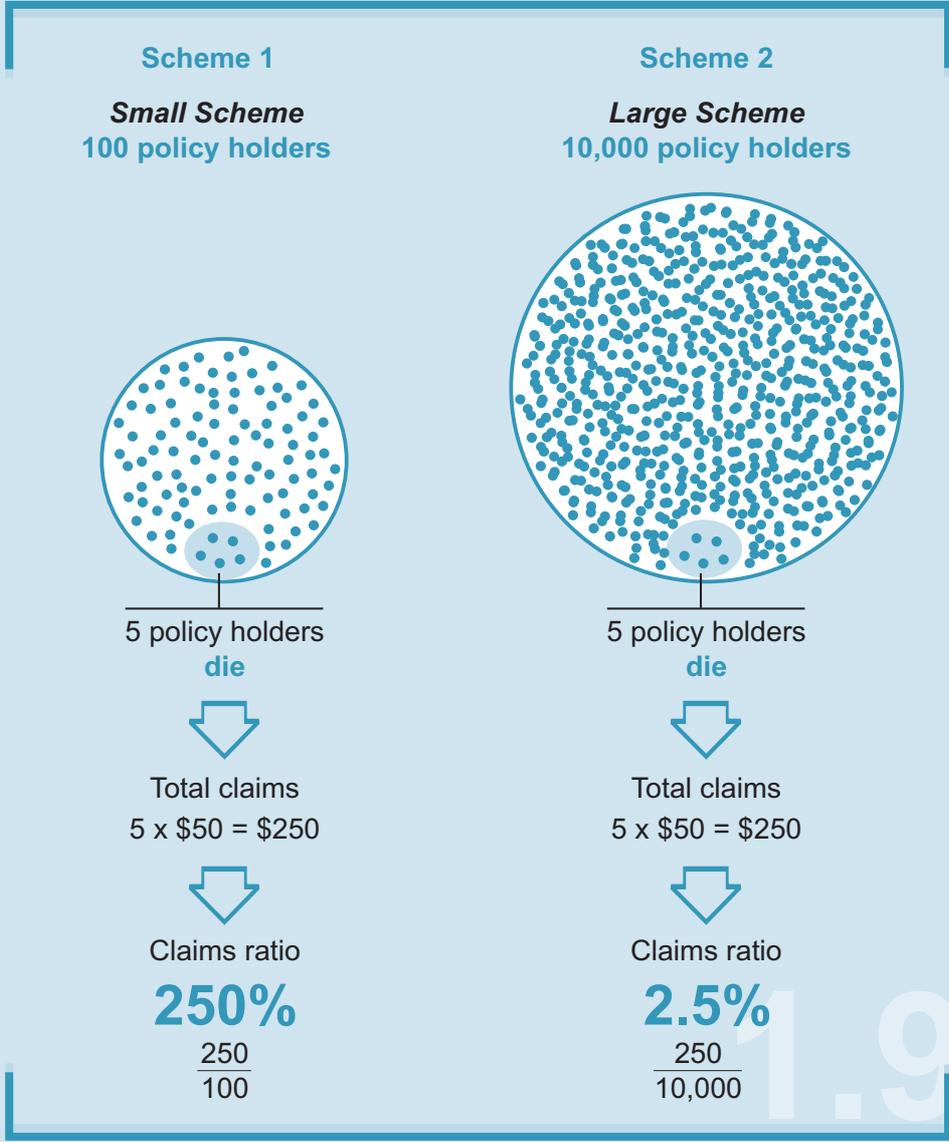
1.9
BOX

The Effect of Covariant Risk by Scheme Size

Five members from the 100 person/US\$50 funeral benefit scheme (described in Box 1.7) are killed in a motor vehicle accident. No other claims occur in that year. Total claims amount to US\$250, which is 250 percent of the expected claims. The claims ratio for the year is 250 percent.

Now suppose that there were actually 10 000 scheme members. The total risk premium (and expected claims) would be US\$10 000. If the same five persons are killed, and they are the only ones to die in the period, the total claims paid, US\$250 is only 2.5 percent of the expected claims, and the impact on the claims ratio will be correspondingly small.

The Effect of Covariant Risk by Scheme Size





Experience rating is the setting of premiums with reference to the actual claims experience of the insurance pool. This method is the main pricing mechanism for insurers who do not have actuaries or sophisticated tools for technical analysis. Experience rating requires an initial theoretical estimate of the premium rate and some statistically credible claims experience. Statistical credibility requires a large pool of data. Experience rating is relevant if the past can be considered a good guide to the future, i.e., if there are no changes in factors that will significantly alter the future occurrence of the claim event. As shown in Box 1.10, monitoring the claims experience is a critical phase in the product development cycle. Detailed experience rating methods are discussed in the Chapter 7.

Experience Rating and the Product Development Cycle

**1.10
BOX**

Given the inherent danger in carrying risk, insurers or other institutions carrying risk must closely monitor their experience to ensure that the scheme is run on a sustainable or profitable basis. This typically involves the following steps for an insurance product, beginning with its initial development.

1. Institutional assessment of capacity to develop a product and assemble the required team.

2. Market research to determine the need and demand for insurance, and to gather information about prospective clients. Information about any products offered by competitors is also required.

3. Product development, including the definition of insured event, benefit, eligibility criteria, term, etc. and assessment of operational requirements, legal compliance, capital requirements.

4. Pricing of risk premiums:

- Estimate the probabilities of the insured events, based on other insurers' experience, general population data or any other sources of information adapted for the anticipated market;
- Combine with the desired benefit design to obtain risk premiums; and
- Determine the allowances for administration expenses, surplus, contingencies, cost of capital and investment income.

5. Develop systems, marketing material, staff training.

*Experience Rating and the Product
Development Cycle*

6. Implement the product.

7. Monitor the claims experience as it emerges:

- Compare the actual claims experience to that expected in the premium basis using an experience investigation; and
- Return to step 2, adjusting the expected premium basis in light of the experience investigation and any other new information about the market, new factors affecting the risk and so on.



KEY TERMS and CONCEPTS



- ✓ Claims ratio
- ✓ Experience
- ✓ Experience rating
- ✓ Product development cycle



1.6 Other Considerations

Other insurance concepts require a brief introduction. The three issues addressed in this section—reserves, reinsurance and systems—are discussed only in so far as they are relevant to the microinsurance products introduced later in this manual. For other products, particularly long-term life insurance, these issues require a far more detailed and complex treatment.

Reserving

Reserves are funds set aside by insurers for a number of reasons, including claims and contingencies. Reserves are even required for outstanding claims, i.e., claims that have been reported but not yet settled.

If an MFI or insurer receives a premium at the start of a contract, part of that premium must be held aside to meet the claims expected to arise from the contract. It would be inappropriate to record the premium as income or contribution to profit when the insured event could still occur in the future and give rise to a large claim liability. These **claims reserves** can be divided into several subclasses, including reserves for unexpired periods of cover and reserves for incurred but not reported claims.

As partial protection against adverse claims experience, the risk carrier may hold **contingency reserves**. Over and above the expected claims, these funds act as a financial cushion. Small insurers might need to keep a claims fluctuations reserve to have a cushion against the variable claims experience of a small risk pool.

For traditional insurers, regulators monitor the amounts held in reserve to make sure that the insurer can meet future claims liabilities under all reasonable future circumstances.

Reinsurance

Almost all insurers “insure” themselves through a reinsurer. The reinsurer by virtue of its larger size or capital bears some or all of the insurer’s risk in exchange for a reinsurance premium. Reinsurance can be used to manage covariant risk.

Even if an insurer’s experience is reasonably predictable and manageable, by virtue of the random nature of risk, there is always the chance of a particularly unlucky string of events bankrupting the insurer. Reinsurance limits the insurer’s exposure to this risk—it is almost always advisable to have reinsurance.

Reinsurers are frequently sources of knowledge and expertise, given that they operate globally in many markets. Accessing this knowledge and experience is one reason that most insurers take out reinsurance.

Systems

A final word on systems: the MIS requirements for insurance can be much more complicated than for loans. Sophisticated pricing, monitoring and rating require comprehensive data and analytic systems. These are essential to maintain an insurance business on a financially sound and sustainable footing. While practical simplified methods exist and can be applied, insurance products should not be offered without monitoring capacity. Many insurers—even large commercial insurers—struggle with keeping data systems functional and up to date. As product ranges grow from the simple to the complex, care must be taken to ensure that rigorous monitoring and checking systems keep pace with product design.

KEY TERMS and CONCEPTS



- ✓ *Claims reserve*
- ✓ *Contingency reserves*
- ✓ *Reinsurance*



Further Reading on Insurance Fundamentals

The following can be downloaded for free from www.mip.org:

- Brown, W. and C. Churchill, 2000, “Glossary of common insurance terms,” Bethesda, Maryland, USA: Microenterprise Best Practices (MBP) Project, Development Alternatives / USAID.
- Brown, W. and C. Churchill, 1999, “Providing insurance to low-income households: Part 1: A primer on insurance principles and products,” Bethesda, Maryland, USA: Microenterprise Best Practices (MBP) Project, Development Alternatives / USAID.
- Brown, W. and C. Churchill, 2000, “Insurance provision to low-income households: Part 2: initial lessons from micro-insurance experiments for the poor Bethesda,” Maryland, USA: Microenterprise Best Practices (MBP) Project, Development Alternatives / USAID.

The following is not downloadable off the Internet, but it provides a detailed overview of insurance fundamentals:

- Vaughan, E.J., and T.M. Vaughan, 2002, “Fundamentals of Risk and Insurance, 9th Edition, John Wiley and Sons.⁵

⁵ Please note that this is the latest edition of this textbook; earlier editions would also be useful.

Appendix 1

**Plough Oxen Insurance - The Example of
ADR-TOM**

The following case study on microinsurance in Burkina Faso is adapted from an ILO working paper by M. Aliber & A. Ido. It illustrates how insurance principles are or should be incorporated into the product design. The entire study can be downloaded from the publications section of www.ilo.org/socialfinance.

No instances of functioning microinsurance schemes for property loss or damage were discovered in Burkina Faso. However, one very important defunct scheme was studied, and is discussed here at length. The importance of this scheme resides in the fact that it endured for a respectably long time (26 years) and performed a vital function, namely enabling peasants to replace plough oxen killed by disease.

The plough oxen insurance scheme in question was started in 1969 by an NGO in Toma, in the province of Nayala, some 160 kilometres to the northwest of Ouagadougou. The region generally has favourable agricultural conditions, but is rather isolated. The NGO, started in 1966 by a Dutch cleric, was initially known simply as 'Projet Toma'. The main aim of the organisation—later renamed ADR-TOM (Association pour le Développement de la Région de Toma)—was to support the local peasantry through training and agricultural finance, but the project also undertook activities in health promotion and, in the mid-1970s, it launched a general savings and credit cooperative.

The centrepiece of the agricultural programme was the training of peasants in the effective use and maintenance of plough oxen, outfitting peasants with oxen teams and necessary equipment, and providing veterinary care. Trainee members were organised into village associations, which served as the organisational unit for the insurance on an on-going basis. The first trainees were inducted in 1969, and lending operations started shortly thereafter. The training-lending-insurance scheme grew steadily for the next two decades, reaching a high in the late 1980s of around 100 farmers assisted per year. It is estimated that, in the period 1980 to 1988, ADR-TOM equipped and insured between 4 and 8 percent of all farmers in the province, which is an impressive achievement. Notwithstanding some serious technical design flaws explored below, one can surmise that the plough oxen insurance scheme survived for

such a long time due to strong management, the vibrant organisation among members, and because it was highly valued by the farmers themselves.

In the mid-1990s a leadership struggle rocked ADR-TOM resulting in a precipitous drop in loan repayment, a need to dramatically reduce core staff, and general dysfunction. The financing and insurance of plough oxen ceased in 1995. The leadership crisis took 2 to 3 years to resolve, and the organisation has not yet regained its former strength and dynamism.

Basic Elements

ADR-TOM's plough oxen insurance scheme was designed as an obligatory aspect of its programme to train peasants in the use of plough oxen and to outfit them with oxen teams and equipment by means of loans. The premise of the programme was that one needs a pair of oxen to farm effectively. The loans were repayable within 7 years, which is the normal working life of a plough ox. Only married men with children were eligible, and in any given year trainees were selected from one or two villages and formed into groups, in which they would remain for the duration of the training and beyond. The 'ideal' group was 8-10 members, but in practice groups varied from 2 to 74 men.

To qualify for a loan, a successful trainee would be required, at his own expense, to take selected oxen for a veterinary examination. If the veterinarian recommended the purchase, the farmer would be issued with a booklet for each ox, in which all treatments were to be recorded, and which would thus demonstrate whether or not the farmer was taking reasonable precautions against diseases. Each group would have its own "assurance mutuelle" account held at ADR-TOM, which was treated as a dedicated savings account for the operation of the group's insurance protection. Each group thus maintained its own booklet, in which all transactions into or out of the account would be recorded. The account was capitalised through annual contributions by each member, as well as occasional subsidies from ADR-TOM. In the early and mid-1980s, the annual member contributions were 5,000 FCFA, which we interpret as the premium of the insurance cover. Subsidies of 8,000 FCFA to 14,000 FCFA were made into each group's fund, but seemingly were discontinued after 1982-83.

Upon the death of an animal, the procedure was as follows. First, a veterinary examination was made to establish that the animal had not died due to the negligence. If the veterinarian issued a negligence-free certificate, the owner

could draw funds from his group's insurance account. Second, if the veterinarian deemed that the carcass was fit for human consumption, it would be sold, usually with all the members of the owner's group present as witnesses. Third, each group member would contribute a nominal sum towards the purchase of a replacement animal. From the mid-1980s on, this was 500 FCFA per member. Fourth, the group leader would take responsibility for purchasing a replacement animal, taking together the proceeds from the sale of the carcass, the collection from the other members, and whatever was then still required from the group's insurance fund.

As of the mid-1980s, the whole package of two plough oxen plus equipment cost around 155,000 FCFA, of which about half was for the oxen. Given the annual contribution per member to the group insurance fund of 5,000 FCFA, the annual premium was 6 to 7 percent of the value of the insured pair, though arguably considerably more in later years as the animals declined in value.

Overall Performance

It is not possible to offer a rigorous evaluation of the ADR-TOM plough oxen insurance scheme since only a handful of officials involved with the programme were still available for interviews and since records are very incomplete. Partial records could be found for the period 1981 through 1994, for some 75 groups comprising 900 members, which would have been the majority of participants over that period. However, the quality of the records was not sufficient to have an unambiguous idea as to what was going on in any particular group, nor for the scheme as a whole.

Nonetheless, however limited the information, the picture that emerges is of a scheme that, for all its imperfections, was quite robust. Most impressive perhaps is the fact that it survived for such a long period of time, with only occasional injections of subsidies, and that it became defunct for reasons external to the scheme's design. Interviews with officials as well as former members, confirmed that the scheme functioned well for many groups, but poorly for others. Not all members subscribed equally to the mutualist ethic, and many members struggled to grasp the principles of the insurance system. The records reveal that, for many groups, annual contributions were not made by all members on a regular basis at all, though it is not clear what incentives existed to encourage delinquent members to get up to date.



One of the biggest problems would appear to be that most groups were too small to provide adequate risk pooling. About one third of the 75 groups for which information was available had 7 or fewer members. Small groups did not collect enough in annual contributions to cover the cost of one replacement ox. Not surprisingly, group longevity was therefore much poorer for smaller groups. Of those groups having 7 members or smaller, the average number of years survived was only 2.8 years; by contrast, groups with 8 or more members lasted an average of 7.5 years. A simple econometric analysis shows that longevity was an increasing function of the number of members, but at a decreasing rate, with the optimal group size being well over the average of 12 members.

Taking data for all groups together, ox mortality is calculated at 1.25 percent, meaning that in a given year, only 1.25 percent of the oxen purchased under the scheme would die. This suggests that the premiums charged were in fact far in excess of what was actuarially necessary. An actuarially reasonable risk premium would have been closer to 1,000 FCFA, or one fifth of what was actually charged. Taking into account the 500 FCFA contributions from group members upon the death of a member's ox, plus the sale of the carcass, this figure could probably be reduced further to less than 700 FCFA.

One can surmise that the high level of the premium was an attempt to compensate for the insufficient group size, so groups could replace animals despite having few members to contribute. However, the consequence of this strategy, which in any event was not successful for many smaller groups, was to leave larger groups with an excess of savings, which may have discouraged continued contributions from some members. Because of variable group size, some groups were under-insured and others over-insured, resulting in overall inefficiency. Notwithstanding the failure of a significant number of groups, the total level of 'savings' in the remaining groups' insurance accounts as of 1995—when most accounts were effectively frozen—was 5.9 million FCFA, enough to purchase more than 4 times as many oxen as would be expected to die in an average year. The implication is that if a minimum group size had been established (say around 15 or 20) or, even better, if a mechanism had been established to pool risk across groups, then far lower premiums would have been possible and the whole scheme would have been more sustainable. Pooling risk across groups, and thus over a larger geographical area, would also have had the advantage of reducing the exposure to high covariant risks within a village-based group.

The second major design flaw of the scheme, at least in principle, appears to have been that the insurance carried on for the whole length of the loan, meaning the whole useful life of the oxen. The problem with this approach is that the risk of animal death increases substantially from the fifth year, meaning that the scheme essentially insures against an event that begins to approach certainty. An alternative approach would have been to define what is a 'pre-mature death' for an ox, and only insure for this period, or to scale premiums according to the age of the insured animals.

On the other hand, it could be argued that the scheme was not simply an insurance mechanism, but also a vehicle for group members to save up for replacement oxen. Such a deliberate saving mechanism would in fact appear to be excellent idea, but the design of the system would not seem to have been appropriate to it, especially since the group's savings were held in common and not earmarked for individual members.

Perceptions of Members

Several farmers were interviewed who had participated in ADR-TOM's training-lending-insurance scheme. Without exception, they indicated that the scheme had provided a valuable function, and that its insurance component was valuable in its own right. Two interviewees had been able to acquire replacement oxen by means of the insurance, and several others had belonged to groups in which other members benefited.

When asked if they would like to see the scheme be revived, there was also a consensus in favour. However, there were two other common reactions. First, a number of interviewees stressed the importance of education, as they felt that many participants in the previous scheme did not sufficiently understand the scheme's principles.

Second, a number of interviewees stated that if the scheme were re-introduced, then, as before, they should be obliged to participate. Presumably this means that insurance should be obligatory for those accessing loans for oxen purchase, but in effect interviewees were acknowledging that, given the option, they would not subscribe to the insurance scheme even though they believed it was a good idea. As in many other situations, people's long-term sensibilities may be thwarted by shorter-term impulses, and a binding agreement provides a welcome protection against myopic decisions that contradict the better judgement of the longer-term perspective. The



farmers' apparently absurd proposal—that they must be forced to adhere to a scheme for their own good—in fact relates to a profound and little appreciated dimension of economic behaviour. Implications for design, however, are not at all straightforward.

Dealing with Moral Hazard and Adverse Selection

The primary defence against moral hazard in ADR-TOM's plough oxen insurance scheme is the attention to veterinary care during the lifetime of the oxen, as well as the veterinary exam required upon an animal's death. In addition, the possibility of moral hazard—e.g., negligence in the care of one's oxen—was diminished by the nature of the group scheme. Presumably, group members, being from the same village, would have some idea of one another's animal care practices. One feature of the scheme stands out as a clear guard against moral hazard, namely the presence of group members when the carcass of an insured animal is sold. The rationale quite clearly is to ensure that the best price possible is obtained for the carcass, lest the group's common insurance fund be depleted more than is strictly necessary.

Finally, the 500 FCFA contribution by each group member upon the death of an ox, which is put towards the purchase of a replacement, can be thought of as a type of deductible. A deductible typically forces the insured party to bear part of the cost of the claim, and thus reduces moral hazard. In the ADR-TOM case, the deductible is payable not just by the individual making a claim, but by the other members of the group as well, i.e., it is a 'group deductible'. This brilliant adaptation would seem to accentuate the function of the group in controlling moral hazard.

Adverse selection is not a significant concern in this scheme since oxen were insured by virtue of the fact that they were purchased with a loan, which the farmer was obliged to repay regardless of their health status or early mortality. Moreover, the insurance was designed to payout in-kind, through a replacement ox rather than in cash, which may reduce the risk of adverse selection. The project also seems to use positive selection by only allowing trainees with children to participate in the scheme. Presumably this requirement is based on the assumption that fathers are somehow more committed to farming and perhaps less likely to migrate than unburdened bachelors.

Broader Questions and Future Directions

A key question about this insurance product is whether or not it will be re-introduced in Burkina Faso. There is ample evidence to suggest that this scheme served an important function, and there continues to be a demand for it in Toma and elsewhere. There is also reason to believe that there is scope to significantly improve on the ADR-TOM scheme through a small number of adjustments. With the growing sophistication of Burkinabé MFIs, it may be a good time for such an initiative. Unfortunately, ADR-TOM remains too weak for such an ambitious endeavour.

Can a similar insurance scheme be divorced from a lending programme? Would it be possible to provide insurance cover along the lines of ADR-TOM's approach, where anybody would be eligible, regardless of the means by which they had acquired their ox or oxen? Provided the premiums are reasonable, the demand for such a product could be large indeed. For that matter, could such a scheme also accommodate risks to other animals, e.g., donkeys, or possibly other cattle? It is probably the case, however, that such a scheme could not successfully be extended to cover loss of livestock through theft. Although livestock theft is a problem, and seemingly a growing one, the moral hazard problems are less tractable as it is difficult to establish whether an owner took reasonable precautions.

A further question is what role 'village groups' might serve in such a scheme. If, as suggested above, risk pooling must be extended beyond small village groups for the scheme to be affordable and sustainable, then might there still be a function for groups in addressing moral hazard? This remains quite a nebulous area, but an important one. As discussed above, the group aspect of the scheme probably played a very valuable role, even though the limited risk pooling possible for smaller groups was their undoing.

INSURANCE PREREQUISITES

The purpose of this chapter is to:

- Identify the institutional capacities required for MFIs to enter into a new type of business
- Develop a preliminary understanding of how to assess the demand for insurance
- Stress the need to gather information about potential competitors and collaborators
- Explore the regulatory provisions around that may impact on the provision of microinsurance

Chapter 1 provided an overview of basic insurance principles and practices—yet despite the abridged contents, it is clear that insurance is a complicated and risky business. This chapter introduces five conditions that should be in place before a microfinance institution considers developing an insurance product:

1. Capacity and competence to enter into a new type of business
2. Confirmation that there is indeed demand for insurance
3. Information about potential competitors and collaborators
4. Assurance that the provision of insurance is acceptable to regulatory authorities
5. Access to sufficient data to make sound pricing decisions

2.1 Does the MFI have the Capacity to Offer Insurance?

All financial institutions should conduct a self-assessment prior to any significant alteration to its business, especially when adding or revising a product. The impact of such additions or changes can cause serious problems with systems, policies, procedures, staff and management.

Microinsurance, however, is not just a new financial product for MFIs—it is an entirely new business. A preparatory self-assessment is therefore even more



crucial for insurance-interested MFIs. Such an assessment will help a microfinance institution not only determine if it can manage the business, but also what capacity and infrastructure it requires to do so effectively.

The following assessment framework helps to determine whether an MFI has the capacity to add microinsurance to its existing operations.⁶ It summarises the key institutional conditions for seven operational areas that need to be in place before an MFI develops an insurance product:

- a. Institutional Strategy
- b. Financial Viability
- c. Organisational Culture
- d. Human Resources
- e. Delivery networks
- f. Systems
- g. Marketing

When using this framework, consider both the MFI's current situation as well as the anticipated disruptions or alterations caused by the implementation of an insurance product.

Institutional Strategy

A new product should be considered in light of an institution's mission and should fit into its long-term business plan. Since business projections and frequent monitoring of insurance products are critical, the MFI should already be conducting projections and profitability analyses on its existing products.

Will the provision of insurance help the MFI to fulfil its mission?

Is the development and implementation of an insurance product in the institution's strategic plan?

Does the MFI use projection models for individual products?

Is the MFI commercially oriented and thus will it price insurance to include full delivery costs?

⁶ Adapted from Brand 2001, "The MBP Guide to New Product Development," USAID's Microenterprise Best Practices Project, DAI: Bethesda, MD. Available on www.mip.org.

Financial Viability

It is probably unwise for an MFI that is currently losing money to consider entering the unfamiliar terrain of insurance. Ongoing quality problems with its loan portfolio are another indication that perhaps its attention should be on improving its existing services rather than developing new ones. And if an MFI has not found means for controlling credit risk, it is unlikely to succeed in controlling for adverse selection, moral hazard and other insurance risks.

Is the MFI profitable or nearly so?

Does the organisation have a strong track record on portfolio quality?

Organisational Culture

The successful development and launch of an insurance product requires a culture of good communications, strong controls, and formal operating procedures. Communication is required to involve staff in the development process, to allow them to voice their concerns, and to promote ongoing feedback from the field. An MFI needs to have strong controls to minimise the risk of fraud, which will only increase with the addition of a new product. Furthermore, there is not much scope for local interpretation of insurance products; staff must promote and manage the product in a manner consistent with the policy. A strong culture of adherence to written policies is therefore a requirement for insurance delivery.

Does the organisation have effective channels for vertical and horizontal communication, i.e., communication up the organisational hierarchy and between employees at the same level in the organisational hierarchy?

Is there a strong culture of internal control?

Has the MFI largely avoided significant fraud problems?

Do staff follow standard, well-documented operating procedures, and do all offices conform to the same standards?



Human Resources

Because field staff have to explain, and perhaps even sell, the insurance product to clients, they must have a detailed understanding of and commitment to the insurance business. The introduction of a new product can be thwarted if staff members are inherently resistant to change. In addition, insurance requires some technical skills that are not commonly found in MFIs.

Is the MFI able to provide insurance training to staff?

Are employees receptive to new ideas and new products?

Can the MFI access the actuarial and other technical skills necessary to support insurance?

Delivery Networks

Insurance products should, wherever possible, be seamlessly integrated into the MFI's current activities so that new structures and staff are not required. The most efficient means of accomplishing this objective is to link the delivery of insurance with an existing credit or savings product. While not a precondition, the organisational structure is also an issue to consider. Decentralised structures are typically more client-responsive, while centralised structures often provide better controls. If the controls are strong, a decentralised system may be preferable.

Can the institution efficiently provide insurance so that significant new expenditures are unnecessary?

What effect would the addition of an insurance product have on the delivery and performance of existing financial products?

Are systems centralised or decentralised, and what are the implications for insurance provision?

Systems

The introduction of insurance will cause disruptions and require adjustments to normal workflow throughout the organisation. In particular, the capacity of the finance, MIS and internal audit departments to cope with a new product should be analysed. Not only does the finance department need to monitor income and expenses on a per product basis, but it also needs to isolate claims and contingency reserves. Effective information systems are especially critical—data will be needed to help the MFI track experience and assess product performance. Furthermore, a strong and effective internal audit department is a prerequisite for introducing insurance.

Can the MFI assess the operational impact of the insurance product?

Are income and expenses separated by financial product?

Does the organisation have the discipline to maintain insurance reserves?

Can the organisation produce accurate and timely financial statements and portfolio reports for its existing products?

Are information systems easily adaptable to track and report insurance related data?

Are systems adaptable to providing regulatory data where and when required?

Is there a strong internal audit function?

Marketing

An insurance product is unlikely to succeed if clients do not need or want it, or if they cannot be convinced that they need or want it. Ideally, MFIs should generate initial product concepts directly from clients, which will enhance the likelihood that clients will actually purchase the product. The first step is having the market research capacity to analyse customer demand and then, second, translating that information into effective product development. A systematic product development process, including careful pilot testing, will ensure that



the product is properly designed before it is made available throughout the institution.⁷ Third, front line staff need the sales skills and marketing messages to convey to clients how the product satisfies their needs.

Does the MFI have effective market research methods to learn about customers' behaviours and preferences?



Does the institution follow a systematic product development process including pilot testing?



What problems has the MFI experienced when introducing other new products and what lessons has it learned from those experiences?



Do staff use effective sales techniques when marketing their existing products?



2.2 Is there a Demand for Microinsurance?

Having the institutional capacity to determine the demand for insurance is one thing, but more importantly, is insurance a service that low-income households really want? The second precondition is to assess the demand for insurance among existing and prospective clients. At this initial stage, an assessment of demand involves three primary elements:

- a. Determining what risks they are most vulnerable to or most concerned about
- b. Ascertaining how they are currently coping with those risks, and whether they are satisfied with their coping methods
- c. Assessing the target market's current understanding of insurance—have they had any experience with it and do they have negative preconceptions

The first element determines whether the risks that clients are concerned about are the same ones that the MFI wants to insure—if clients worry primarily about paying medical bills and the MFI wants to offer life insurance, there may be a problem. Second, if clients are comfortable with their existing coping mechanisms, then they may not be interested in an alternative approach. And third, it is necessary to determine how familiar clients are with the risk-pooling mechanism of insurance and whether they are open to such an approach. A

⁷ For more details on new product development in microfinance see two 1998 publications by Monica Brand: "New Product Development for Microfinance: Design, Testing and Launch," and "New Product Development for Microfinance: Evaluation and Preparation." Both are published by the Microenterprise Best Practices (MBP) Project, Development Alternatives – USAID, Bethesda, Maryland, USA, and available for free at www.mip.org.

lack of familiarity does not necessarily lessen the demand, it just indicates that marketing techniques will require a significant educational component. If clients have or have had insurance policies elsewhere, this can provide critical information about the existence of other microinsurers as well as insights into the product features that clients do and do not like.

Demand Considerations

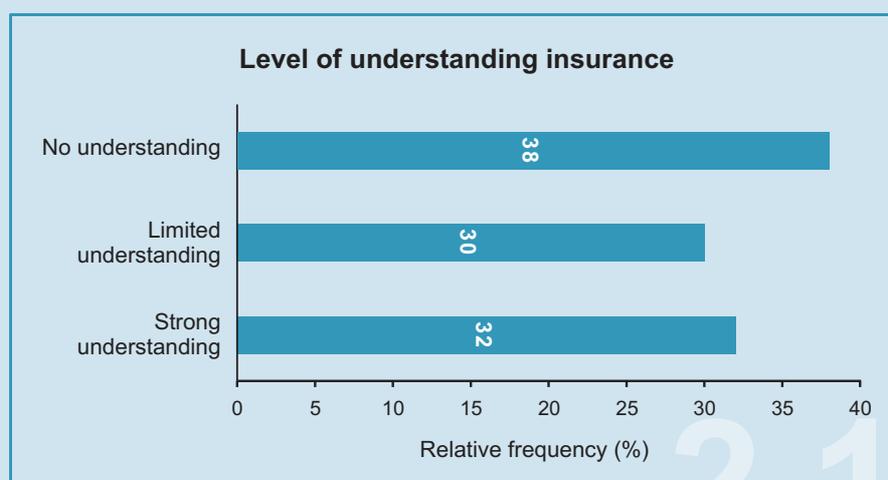
Although there is no denying that low-income households are extremely vulnerable, early research on the demand for insurance suggests that the target market may not consider insurance as an appropriate means of managing risks for several reasons:

Education: Demand for microinsurance may be suppressed because low-income people are unfamiliar with the risk-pooling concept or have an incorrect understanding about insurance (see Box 2.1).

Are Low-income Persons Familiar with Insurance?

2.1 BOX

Research in the peri-urban compounds around Lusaka, Zambia indicated that low-income persons have a shallow understanding of insurance. The majority actually expressed ignorance. Structured interviews helped to categorise this level of understanding. The figure below shows that only a third of the respondents demonstrated a strong understanding of insurance.



Are Low-income Persons Familiar with Insurance?

Strong understanding implies the respondent had a clear definition of insurance and how it works, that is, payment of premiums and a conditional benefit if the insured event occurs. Limited understanding signifies a basic grasp without full knowledge of how insurance works. No understanding captures both misunderstanding as well as inability to define insurance. Some sample responses are provided below:

Strong Understanding: “Compensation received by a person who joins the insurance company against loss or damage to property after paying a regular premium to the insurance company. One cannot receive this compensation unless loss or damage has occurred and it has to be ascertained that it was not caused by yourself.”

Limited Understanding: “Insurance is cover given to property or life by insurance company in case of a calamity;” or “When items are damaged, a company can help to replace them.”

No Understanding: “Is giving money that can be returned to you when you have a problem;” or “Surety that someone makes if a customer makes an order for things that are not in stock, they need to leave some deposit/money as an assurance that he will come to buy that item.”

To determine who understands insurance, some cross tabulations were done with education, gender and literacy variables. Not surprisingly, the higher the educational attainment, the greater the likelihood that one understands insurance. Those who were not educated at all had no understanding while those who attended college or university showed a strong understanding of insurance. There was a similar relationship for literacy. Respondents who could not easily read and write typically did not understand insurance. In addition, men had a higher know-how than women. While only 22 percent of the male respondents interviewed had no understanding of insurance, half of the females had no understanding.

Adapted from Manje and Churchill (2002).

Negative Perceptions: In some regions, insurance has a bad reputation. If the local insurance industry has been marred because of aggressive or inappropriate sales methods, fraudulent schemes, or a history of rejecting claims and paying claims late, new insurers will have difficulty selling policies to an already tepid market.

Regional Variations: It is important to understand the local demand because there are significant regional differences. GRET in Cambodia, for example,

identified a strong demand for health and life insurance, but much less interest in livestock insurance because caring for animals is viewed as an individual matter. In Zambia, some persons considered life insurance taboo because it suggested that they were preparing for their death (Manje and Churchill 2002). In contrast, research in Nepal identified significant demand for livestock insurance (Simkhada et al 2000).

Poverty Level: Very poor people may not want to purchase insurance because they may not consider the expense to be a good use of their limited financial resources. The demand study conducted in Zambia clearly revealed that insurance would not be a high priority for many persons, as indicated in the following quotes:

- “I think insurance is for people with a lot of money.”
- “For now, I would rather work towards increasing my income, asset base and livelihood, only then can I think of insurance.”
- “I find it difficult to save because of meagre profits I make from my business...this money used for insurance can be used for other things.”

The microinsurance business is still new to MFIs and the information and experience on real demand—where people actually purchase and renew insurance policies voluntarily—is limited. For this reason, it is critical that any MFI considering bringing insurance products to the market expend the effort to confirm that their clients really want the product.

Other Risk-managing Financial Products

An important aspect of evaluating demand is to determine whether insurance is the most appropriate financial service to reduce vulnerability. **Savings** and **emergency** loans can also be effective means of managing risks.

Whether insurance is more effective than savings or credit as a risk-managing tool depends on two dimensions: a) the significance of the loss and b) the likelihood of the risk occurring. Where the potential loss is relatively large and the likelihood is fairly uncertain,⁸ then insurance may be an appropriate intervention. If the loss were relatively small or likely, then savings or credit would probably be more appropriate (Brown and Churchill 1999).

Since they fulfil different purposes, savings, credit and insurance could be viewed as complementary products: insurance for the few risks that are insurable (e.g., those that are easily observable and idiosyncratic); savings for persons with a little bit of extra money and the foresight to plan ahead; and

⁸ *Uncertainty has three different elements: if, when and how often? For example, although it is certain that we will all die at some point, the uncertainty arises from not knowing when.*



emergency loans to reduce the need to sell off assets and allow people to borrow against future earnings (see Box 2.2).

Indeed, liquid savings and emergency loans are considerably more flexible than insurance because they can ameliorate the effects of numerous economic stresses. A life insurance policy will not help someone if their house burns down or if their business was robbed. To maximize the risk-managing value to low-income households, MFIs should also consider offering emergency loans and liquid savings accounts, as well as insurance.

Savings, Credit or Insurance? Evidence from Zambia

2.2 BOX

With recognition that low-income people have a limited understanding of insurance, during focus group discussions research assistants provided an explanation about risk-managing financial services. This educational component gave participants basic information of how savings, credit and insurance work as coping mechanisms. The content included examples of informal practices of the financial services such as savings clubs for savings, moneylenders for credit and funeral funds for insurance.

Following the explanation, preference ranking was done to see how the groups would compare the three risk-managing financial services. The results were fairly consistent, with most groups ranking savings and credit first and second respectively.

Risk-managing Financial Service	No. of As	No. of Bs	No. of Cs
1. Savings	9	2	1
2. Emergency loans	3	8	1
3. Insurance	2	2	8

The general conclusions from these discussions are that savings and credit are more flexible than insurance, and can potentially respond to a variety of different needs: “Insurance cannot be split to solve different difficulties.” They also did not like the idea that they would not have anything to show for their premium payments if the risk even did not occur.

Savings, Credit or Insurance?
Evidence from Zambia

Demand for Insurance in Uganda and India

Market research only gives one a sense of what the real demand might be. It is also useful to consider the actual demand witnessed by microinsurers. This section describes the experiences of AIG in Uganda, which provides a group personal accident policy in partnership with FINCA, and SEWA's multipurpose insurance product in India.

Savings, particularly the "under the mattress" variety, is preferred to credit because it is immediately accessible and people do not like the burden of repaying loans: "Savings have no repayment obligations, hence no pressure." But for savings to be an effective coping strategy, people need to have some surplus funds, and they need to be disciplined to squirrel it away. For persons who cannot put aside money, "savings would not be adequate to settle major household or business difficulties, which would suggest that borrowing is the best solution." Which returns the discussion to the repayment pressure problem: "An emergency loan would be useful, except that like any ordinary loan, it too must be repaid, adding on to the existing household or business pressures."

There was also a widely held opinion that low-income persons would be better off putting money into their businesses: "I would rather invest money to boost my business, instead of considering insurance which I will only benefit from when the event occurs."

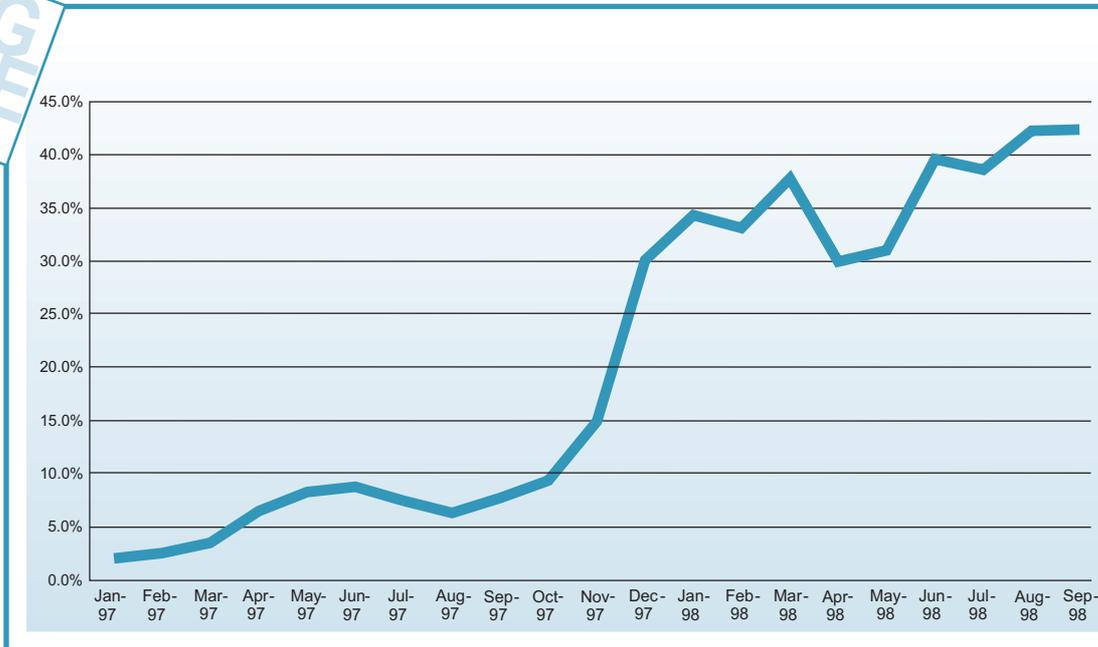
These discussions did not rule out insurance as a coping strategy, but they suggested that it is only relevant for a limited number of specific purposes: "It can pay for big expenses, which are normally difficult if not impossible to settle within the normal household cash flow."

Adapted from Manje and Churchill (2002).

2.2

Participation Rate for AIG-FINCA Uganda Group Personal Accident Policy

FIGURE
2.1



In the AIG experience, shown in Figure 2.1, it took almost two years for forty-two percent of FINCA Uganda’s groups to be insured under their group personal accident policy. FINCA had projected sixty-six percent participation after the first year.

There were a couple of issues that constrained growth. It took some time and training for field staff to develop a sales culture—FINCA Uganda did not meet some of the preconditions specified in the assessment framework above. In September 1997, the MFI outsourced marketing training and soon afterwards experienced a dramatic increase in insurance participation. Second, there was a delay before the demonstration effect took place. The first few groups that subscribed to the insurance policy believed that the insurer would fulfil its end of the bargain, but other groups were sceptical. Once the sceptics saw that indeed claims were being paid, the demand started picking up.⁹

In another example, SEWA originally offered a compulsory policy, requiring all depositors to purchase its basket of insurance products. In 1994, the insurance was made voluntary and only twenty percent of policyholders renewed their policies. The utilisation increased on a nominal basis for four years and then declined slightly over the most recent two years. While these figures suggest

⁹ An important consideration in the slow growth of the AIG product was related to a FINCA policy decision. To minimise adverse selection and the administrative burden, FINCA required approval from the entire village bank (approximately 30 members). Thus, even one person in a group could stop the group from obtaining insurance. It is likely that actual voluntary demand from individuals for the insurance product was significantly greater than that shown on Chart 2.1.

that there is a limited demand for insurance, they may also reflect customer concerns with product design, premium payment methods or other factors that are only exposed in a voluntary insurance product. More details about SEWA's product development efforts are described in Appendix 2.

2.3 Who Else Offers Insurance and Microinsurance?

A market analysis of other suppliers is a precondition for any new product, but with insurance there is a twist. One of the unique features of microinsurance is that MFIs do not have to offer the product on their own. A promising delivery model involves some type of partnership between an MFI and an insurance company. As a result, the market analysis has two objectives: 1) to seek out potential collaborators that can supply the expertise that MFIs lack; and 2) to identify and learn from other insurance services that are targeted at the low-income market.

With regard to the first objective, an MFI's self-assessment must be analysed within the context of the broader market—one organisation's weaknesses may be another's strengths. Consider the range of activities associated with the provision of microinsurance in Table 2.1—an MFI may choose to outsource some of these activities to a formal insurance company or an insurance consulting firm. Outsourcing is discussed in detail in Chapter 5.

Second, if there are other insurance services designed for the low-income market, it is possible to learn what does and does not work, and to avoid repeating someone else's mistakes. Other microinsurance schemes may be a little hard to find, but they exist in many countries. Besides asking insurance companies if they serve the low-income market, also consider informal insurance services that may be supplied by churches, hospitals, funeral parlours or marketplace associations.



Table 2.1 Microinsurance Activities and Responsibilities

Preparatory Activities	Front Office Activities	Back Office and Management Operations
<ul style="list-style-type: none"> ● Initial market research ● Product design ● Risk analysis ● Pricing ● Training staff on insurance concepts ● Testing ● Contract preparation ● Establishing the framework of the administrative system 	<ul style="list-style-type: none"> ● Marketing and sales ● Assisting clients with contracts (designation of beneficiaries, understanding the policy) ● Client monitoring and verification ● Claims application completion assistance ● Premium collection ● Claims disbursement (final disbursement to beneficiary) 	<ul style="list-style-type: none"> ● Ongoing market research and feedback ● Claims review and assessment ● Processing of applications, payments and claims ● Capital mobilisation ● Internal audit ● Reinsurance ● Conflict resolution ● Statutory obligations (e.g., reporting) ● Legal issues

2.4 Is it Legal to Offer Microinsurance?

The insurance industry is regulated in varying degrees in different countries. Regulations define the requirements of an insurer, as well as provide consumer protection through the oversight of insurers. If an MFI intends to offer insurance, another precondition is to determine how it can do so legally.

Insurance regulations typically focus on five areas:¹⁰

- a. **Formation and Licensing of Insurers:** Regulators issue licenses to new insurers based on the quality of the initial financial and management base and the type of products an insurer will provide (e.g., life vs. health).
- b. **Financial Status:** Regulators set standards for financial performance and limitations on the level of risk in an insurer's portfolio.
- c. **Rate Setting:** Regulators oversee pricing policies to protect against discriminatory practices.

¹⁰ Adapted from Brown and Churchill (1999).

- d. **Policy Forms:** Regulators ensure that insurance contracts are clear and not misleading.
- e. **Sales Practices:** Regulators establish standards regarding the training of sales agents, advertising standards and deceptive sales practices. This often results in the licensing of insurance agents.

The primary purpose of these regulations is to protect the consumer. Licensing and financial regulations, for example, are intended to maintain insurers' solvency, which protects consumers from buying insurance from a company that may be out of business when they need to make a claim.

In practice, regulations may hinder the provision of microinsurance. For example, the level of reporting that regulators require may create administrative burdens that render the provision of microinsurance unprofitable. The minimum capital requirements may be prohibitively high for microinsurers given the relatively small size of the policies. For example, initial capital requirements to operate a life insurance business in Uganda is US\$1 million, and US\$1.2 million in South Africa, but in India it is US\$21.2 million. Insurance regulations may also create obstacles to partnerships between MFIs and insurers, as described in Box 2.3.

Regulatory Obstacles to A Life Insurance Partnership

BOX 2.3

Regulatory Obstacles to A Life Insurance Partnership

Some jurisdictions have separate requirements for life and non-life insurance. In these cases, an insurer that may be interested in working with an MFI may only have one type of license, but not the one the MFI wants.

If an insurer is only licensed for non-life business, it will not be able to offer a general life policy¹¹, but it might satisfy an MFI's objectives through a group personal accident policy. Such a policy could provide credit life and disability as well as death by accident; it would not cover illness death other than the portfolio reimbursement. An MFI would require a strict, comprehensive, and clear definition of an "accident" from the insurer to offer such a product since the distinction between illness related or accidental death can be blurred.

¹¹ Frequently "non-life" insurers are able to offer a credit life policy because it is tied to a relatively short duration product and it covers only the value of the credit.



The regulatory situation leaves would-be MFI-insurers with (at least) three options:

1. **Create a licensed insurance company.** This would ensure that credit and insurance risks are completely separated. Since some regulations may obstruct the provision of microinsurance, an MFI may need to petition for a reduction or even an exemption from these requirements.
2. **Become an agent of an insurance company.** Most of the regulatory obstacles could be overcome by selling the products of an existing insurer, although it should be noted that in some countries agents are also licensed.
3. **Offer insurance below regulatory radar.** This option is not illegal; it is just not regulated. For example, credit unions are often allowed to offer unregulated credit life and savings life products because they are sold as member benefits rather than insurance products. Box 2.4 provides other examples. Unregulated insurers should still comply with the spirit of the regulations, such as maintaining appropriate reserves to protect against unexpected losses.

Dealing with Restrictive Legal Environments

2.4 BOX

From a legal point of view, insurance products cannot be offered in India by organisations that are not licensed by the Insurance Regulatory and Development Authority (IRDA). The laws for registration as an insurance company are such that it is highly unlikely that any MFI could ever comply. One strategy for dealing with this is through terminology. By referring to an “insurance scheme” as a “welfare measure” in its annual reports, an MFI may fall under the radar of the law. In India as long as the scheme is available only to members and complies with the legislation regulating NGOs, the state at present is not concerned with restricting their activities. A similar scenario exists in South Africa, whereby it would not be possible for MFIs to register as insurance companies. In South Africa separate legislation, the Friendly Societies Act, allows NGOs to sell insurance. The same is true in Burkina Faso where for the moment mutual health insurers are recognised within the broad category of voluntary not-for-profit organisations and governed by a separate law. In none of these countries is the legislation sufficient to regulate MFI microinsurers.

*Dealing with Restrictive
Legal Environments*

2.4

2.5 Data

The final precondition is to have sufficient data to make appropriate pricing and projections decisions. As mentioned in Chapter 1, setting insurance premiums requires estimating the chance that the insured event will occur. To estimate this likelihood, it is necessary to have historical information on a sufficiently large enough sample to be statistically significant. If the data is not statistically significant, or if the conditions leading to the insured event have changed, the estimated probability may be very different from the actual claims experience.

For life insurance, for example, it is necessary to have mortality rates for the segment of the market that is insured based on characteristics such as the age, gender and income level of the MFI's clients. In many environments, this type of data is not readily available. In fact, the best source of data may be the MFI's own records, assuming that it has been keeping track of client deaths.

KEY TERMS and CONCEPTS



- ✓ *Delivery networks*
- ✓ *Demonstration effect*
- ✓ *Emergency loans*
- ✓ *Financial viability*
- ✓ *Human resources*
- ✓ *Institutional strategy*
- ✓ *Insurance agent*
- ✓ *Marketing*
- ✓ *Organisational culture*
- ✓ *Regulation*
- ✓ *Risk-managing financial services*
- ✓ *Savings*
- ✓ *Systems*



Further Reading on Insurance Prerequisites

The following papers provide useful insights into understanding the demand for risk managing financial services like microinsurance:

- Cohen, M.; and J. Sebstad, 2000, “Microfinance, risk management and poverty,” Washington, DC: Assessing Impact of Microenterprise Services (AIMS), Management Systems International / USAID, www.mip.org.
- Manje, L. and C. Churchill, 2002, “The Demand for Risk-Managing Financial Services in Low-income Communities: Evidence from Zambia,” ILO Social Finance Working Paper No. 33, www.ilo.org/socialfinance.
- Churchill, C., 2002, “Trying to Understand the Demand for Microinsurance,” *Journal of International Development* 14, pp. 381-387.
- Wright Graham, A.N., 2000, “Necessity as the mother of invention: how poor people protect themselves against risk,” Bethesda, Maryland, USA: Microenterprise Best Practices (MBP) Project, Development Alternatives/USAID, www.mip.org.

Appendix 2

Microinsurance Product Development at SEWA

The following case study is adapted from a paper by Michael J. McCord, Jennifer Isern and Syed Hashemi, "Microinsurance: A Case Study Of An Example Of The Full Service Model Of Microinsurance Provision, Self-Employed Women's Association," published by MicroSave Africa in 2001. It can be downloaded from: <http://www.microinsurancecentre.org>.

Background

In the early 1980's, SEWA integrated a health education module in their literacy classes. This was a first step in helping members to improve their health, but was restricted to providing information on basic hygiene, nutrition, and identification and prevention of common diseases. In the mid-1980's, SEWA started acting on the need to provide access to health care services and trained their first batch of basic health-care providers.

As the health program developed and provided much needed services, SEWA realized that the only way to facilitate curative services to the large population of self-employed workers would be through insurance coverage. Arising from member concerns, in the early 1980s SEWA conducted a survey on the frequency, causes, costs, and options when members faced sickness, accidents, and deaths in their families. Convinced that members faced serious difficulties, SEWA began researching options for insurance services. SEWA's early research focused on three areas:

- The capacity for members to pay premiums;
- Members' needs for insurance coverage;
- Typical packages of insurance products available on the market.

Pursuing a Partnership

SEWA then initiated a dialogue with insurance companies to provide coverage to their members. Initially, insurance companies were sceptical that SEWA members would be able to pay premiums, maintain their accounts, and diffuse risk, especially since they perceived SEWA members as an especially

vulnerable group. After extensive lobbying, SEWA negotiated with Life Insurance Corporation of India (LIC), one of the nationalized insurance companies, to provide limited natural death insurance to members in the mid 1980s.

In 1989, two members of SEWA management sat on a government committee to address the concept of public insurance to low income families. On this committee, they convinced the government to provide a subsidy of about US\$2.4 million to the public sector Life Insurance Corporation to subsidize coverage of SEWA members.¹² This subsidy influenced LIC to extend its coverage to include natural death benefit, accidental death, and permanent disability insurance to SEWA members in July 1991. SEWA members therefore paid half of the actual premium; the other half came from the government subsidy.

Thus, SEWA initially designed its insurance products in partnership with the collaborating insurance companies. These products were based on collective insurance products adapted according to SEWA's understanding of the insurance needs of its members.

SEWA initially based prototype development and testing on member preferences and ability to pay premiums. Later, SEWA expanded services in response to positive experience and member feedback through the integrated network of SEWA service cooperatives. During 1992-94, SEWA negotiated with another insurance company, United India Insurance (UII) to expand coverage to widowhood (accidental death of husband), sickness and hospitalization, and loss of house and assets. In 1994, SEWA assumed responsibility for health insurance, and retained LIC for life insurance coverage of members and their husbands.

The Transition from Mandatory to Voluntary

As with most other MFIs introducing a new insurance program, SEWA did not have a formal structured pilot test. It knew what it wanted in insurance products for its members and worked year after year to accumulate the full range of products they have now. When management anecdotally saw problems, they worked to correct them, with very little formal analysis.

As can be seen from Figure 2.2, SEWA started out ensuring all members at that time. This was an initial requirement from the LIC in an effort to cover the

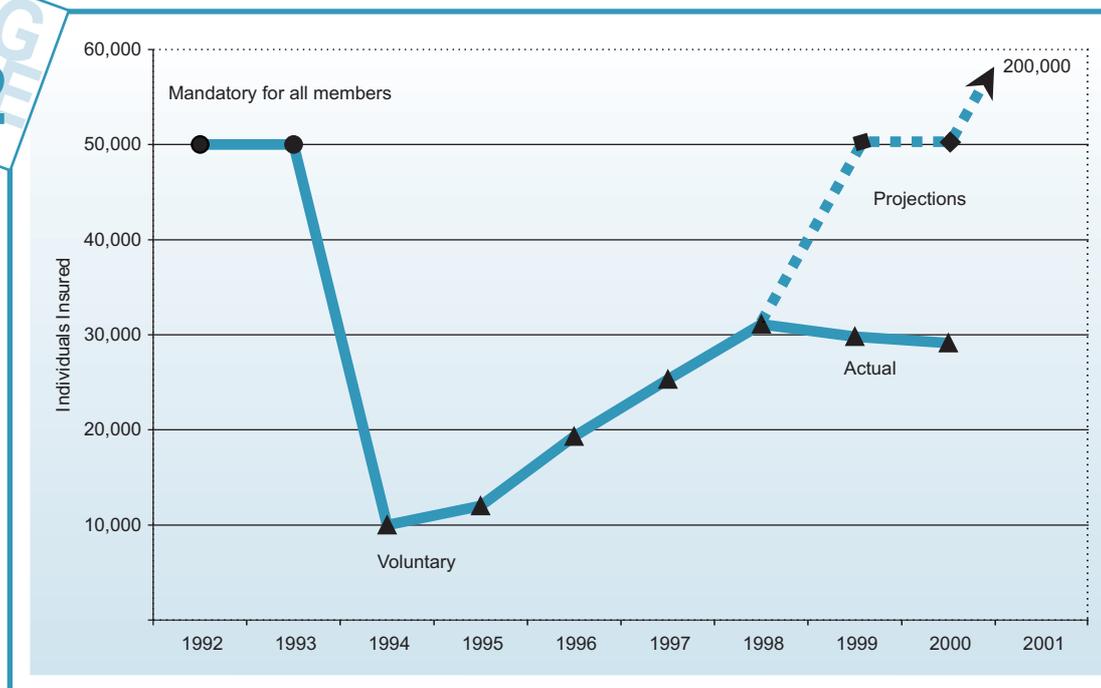
¹² Katharina Hauck. *The Social Security Program of the Self-Employed Women's Association (SEWA). Presented in Kampala, Uganda at the National Workshop on Mutual Health Protection for Business Associations and Producer groups through Micro Finance Institutions, 1-2 December 1999, p. 7.*

maximum risk pool and provide LIC with some protection from adverse selection. No pilot testing was done; SEWA simply rolled out the product to all clients.

Because of long distances, and lack of telephones, SEWA uses “word of mouth” and the postal system to communicate with its vast membership over 200,000 members. Getting information to these members has proven difficult over the years. Nevertheless, SEWA decided, for efficiency, that the first premiums would be paid from member deposit accounts at SEWA. Thus, when the premiums were due, they simply debited the accounts of the all the members and all members were thereby insured. The organisation quickly realized that this was a mistake when uninformed clients suddenly found their accounts depleted for a product they knew nothing about.

This experience reflects one of the problems with a mandatory product, especially at the start up of a new product or business. Because everyone is forced to purchase the product, institutions tend to be much less effective at marketing the business or product. This frequently results in a negative surprise to clients (as was the case with SEWA) or they simply end up paying a premium for the service they do want and know about, ignoring the new product.

The Number of Insured at SEWA (1992 to 2000)



Source: Hauck, p. 10, and SEWA data.

SEWA quickly recognized the mandatory nature of the product and their automatic debiting as a mistake and after the second yearly cycle reverted to a voluntary system. As shown in Figure 2.2, the insured population dropped by 80 percent from 50,000 to 10,000 in the first year it was made voluntary and still has not risen to the initial levels of mandatory participation even with 500 percent growth in total SEWA members since that time.

Some Lessons Learned

SEWA has implemented its insurance program since the 1980s in an evolution of partnerships and service combinations.

Appropriate Products. The experience of the first years of life insurance revealed to SEWA the inadequacies of the program. While it offered some protection to member families through life insurance, it offered nothing to the women themselves. Often after death, the member's husband would use the insurance money simply to re-marry. This was really of little benefit to the member and solved none of the problems SEWA sought to address.

SEWA realized that what was more important than simply covering the member's death, was insuring their husbands' lives so that the members would receive some money if their husbands died. Additionally, members needed health and property insurance. In 1992, SEWA managed to convince United India Insurance Company (another large parastatal) to provide an integrated insurance package that included health and property insurance for members, and accidental death insurance covering their husbands. Since insurance companies would not provide for maternity benefits, SEWA later decided to go alone on this and initiated a separate product—a grant to members in the event of a pregnancy.

Payment Mechanism. SEWA realized the need to develop a mechanism to assist members in savings for the premiums. Thus, in addition to paying premiums on an annual basis, SEWA developed an option for members to purchase “lifelong insurance” with the deposit of a lump sum. This would be kept as a fixed deposit at SEWA Bank and annual interest earnings would be used to pay the insurance premium. Members were able to fund the fixed deposit at the start of an insurance year and receive insurance without additional cost. This also meant that SEWA would not have to market to these members to convince them of the benefits of paying the premiums. Theoretically, once they had funded the fixed deposit, they would have

insurance for life (as the title suggests). In addition, participation in this payment scheme also provides additional insurance benefits for members—cataracts, hearing aids, dentures, and the maternity grant.

SEWA then realized that many members who would have preferred to pay a lump sum for lifelong insurance could not access the amount required. SEWA then provided an alternate method whereby women could save in instalments with SEWA Bank over two years to generate enough money for the lump sum payment. With this alternate method, SEWA provided the incremental savers with full insurance coverage starting after the first instalment was deposited.

Partnership Problems. SEWA quickly realised that conventional insurance companies were not equipped to meet the needs of poor women. There was considerable dissatisfaction by clients. The insurance claims policy was often too strict. Insurance staff would not immediately visit clients to check on claims. The paperwork for filing claims was too involved. There would be long delays in payment. There were conditions that were not culturally sensitive. In the event of accidental deaths, for example, the insurance company insists on an autopsy to assess cause of death, while autopsies are culturally unacceptable. Often transportation of the body to a morgue far way is unavailable; corpses are not carried because they would defile the transport vehicle.

Other insurer decisions were senseless. For example, Katharina Hauck in “The Social Security Program of the Self Employed Women’s Association” provides an interesting example of a scorpion that stung a field worker. As a reflex, she sucked her finger. She died from ingesting the poison, but the insurance company would not accept this as an accidental death. The argument was that death occurred because of sucking the finger, a deliberate action, and not because of the accidental sting.

General client dissatisfaction led SEWA, in 1994, to take over the health insurance scheme. The SEWA health program (a separate unit from the insurance operations), works closely to promote insurance and to integrate their services with the insurance program. SEWA health care workers therefore will provide advice on preventive care, referrals to doctors and hospitals, and assistance in the processing of claims.

FIVE MICROINSURANCE PRODUCTS

The purpose of this chapter is to:

- Introduce the five suggested microinsurance products
- Describe the key features of the products
- Describe the consequences of altering the key design features
- Explain why the five products are the most appropriate for a microfinance institution to offer

Low-income persons are vulnerable to a number of risks. Through ILO research in five countries, microentrepreneurs identified their primary concerns as the financial losses associated with:

- a. Death of a family member
- b. Illness and injury
- c. Natural disasters
- d. Theft or property damage

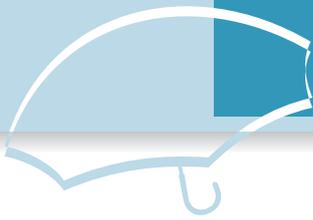
Although the order differs a bit by country, health and death risks top each list.¹³ All of these risks are potentially insurable, but the degree of difficulty varies dramatically.

Of the four, health and disaster insurance are the most complicated, but for different reasons. **Health insurance** is complex because it could potentially cover a wide range of health risks, including minor and major illnesses. It is difficult to estimate the probability that each illness will occur for each subset of the population, which makes the associated costs of health care provision extremely unpredictable.¹⁴ Health insurance also usually includes preventative

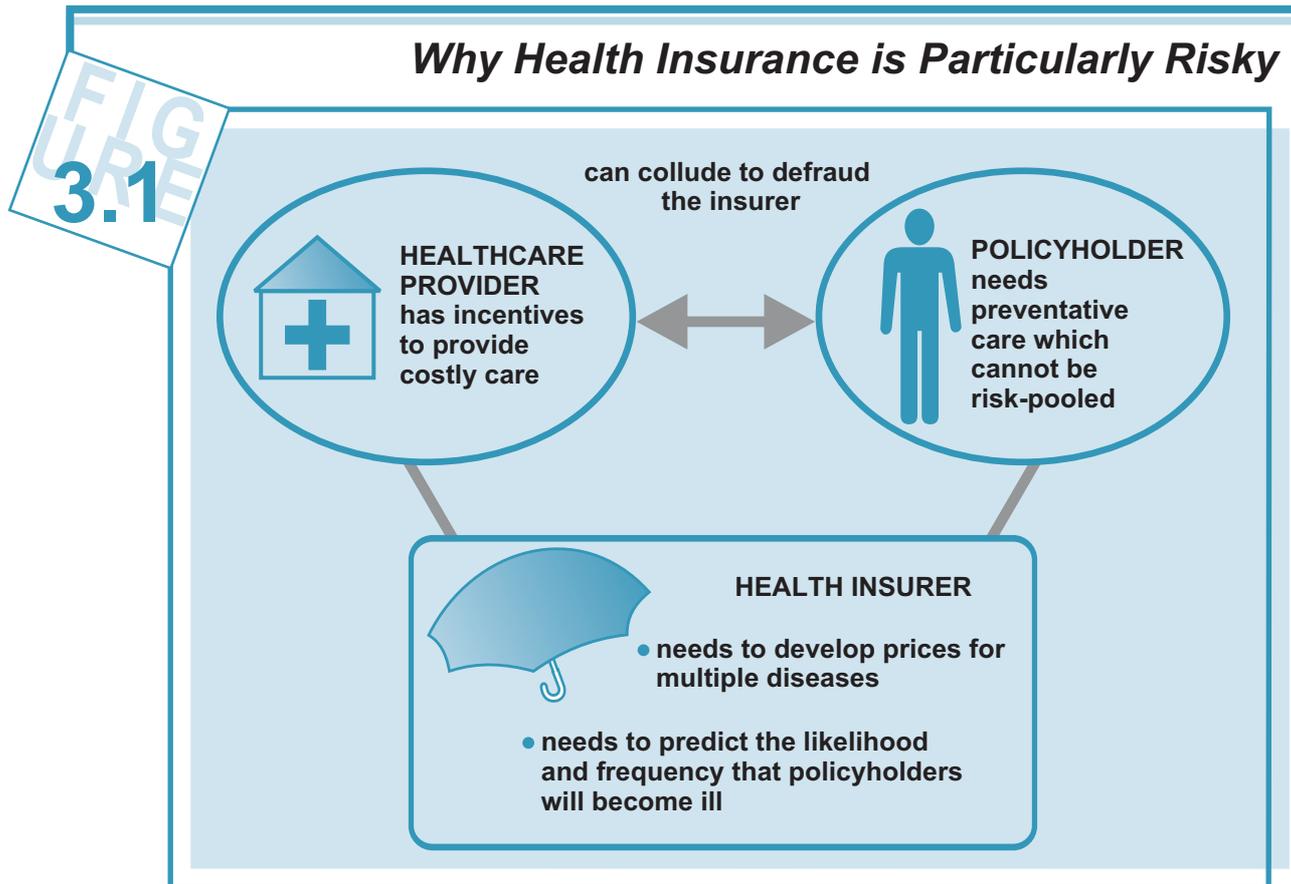
¹³ The first four are available from www.ilo.org/socialfinance; the fifth one should be published sometime in 2003.

- Aliber, M., 2002, "South African Microinsurance Case Study," ILO Social Finance Working Paper No. 31.
- Aliber, M., and A. Ido, 2002, "Microinsurance Case Study for Burkina Faso," ILO Social Finance Working Paper No. 29.
- Manje, L. and C. Churchill, 2002, "The Demand for Risk-Managing Financial Services in Low-income Communities: Evidence from Zambia," ILO Social Finance Working Paper No. 33.
- Soriano, E.S., C. Lomboy and E.A. Barbin, 2002, "A Field Study of Microinsurance in the Philippines," ILO Social Finance Working Paper No. 30.
- Srinivasan, G. and R.S. Arunachalam, forthcoming, "Microinsurance In India" ILO Social Finance Working Paper.

¹⁴ For details on the challenges and preliminary efforts to model health risks for the poor, see Dror and Preker (Eds.), 2002, *Social Re-insurance: A New Approach to Sustaining Community Health Financing*, The ILO/World Bank.



care, such as annual check-ups, that cannot be risk-pooled. Prone to fraud and over usage, health insurance is further complicated by the fact that a third party—the health care provider, which has an incentive to increase costs—is involved in the transaction. The key challenges of providing health insurance are summarised in Figure 3.1.



Threats from natural disasters, such as earthquakes and hurricanes, are hard to insure against for three main reasons. First, disasters are usually difficult to predict. Historical occurrences of such risk events are not strong predictors of future disasters. Second, when such an event does occur, the total financial losses can be very high. And third, a natural disaster is a covariant risk that will affect many of an insurer's policyholders at once. The only way to provide **disaster insurance** is through a reinsurance arrangement that broadens the risk pool across countries and regions, and protects insurers against catastrophic losses.

Property insurance protects against the damage or loss of personal or business assets. Although no where near as difficult as health or disaster insurance, there are three issues that make providing property insurance somewhat complex: a) challenges associated with valuing insured assets, b) the moral hazard risk that people will not take care of their property if it is insured, and c) difficulties associated with verifying claims. The third issue is particularly tricky since policyholders could easily claim that an asset was stolen. It can be expensive for an insurer to set up an administrative system to protect itself against such fraudulent claims.

If an MFI were looking to reduce its clients' vulnerability by offering an insurance product, given their degree of difficulty, these three types of insurance would not be good places to start—in fact, there is a high likelihood that an MFI might never offer these insurance products, at least not on its own. **Life insurance**, however, is a product that an MFI could offer; indeed, many MFIs already implicitly offer some type of life insurance by writing off the outstanding balance if a borrower dies. The provision of life insurance is simplified by the fact that the insured event—death—is easy to verify, difficult to fake, occurs only once per person and the risk of moral hazard is low.

This chapter begins by describing the broad spectrum of life insurance products, which range from fairly straightforward to extremely complicated. It then introduces the five insurance products that are covered in this manual. The bulk of this chapter is then dedicated to describing the features of the five products.

The Burkina Faso case study in Appendix 1 demonstrates an innovative way of valuing assets (in this case livestock), controlling moral hazard, and verifying claims, although it did not apply to theft.

3.1 The Life Insurance Spectrum

Life insurance products differ greatly in their level of complexity, as summarised in Table 3.1. The most basic, credit life, repays a loan if the borrower dies with an outstanding balance. The insurance term corresponds with the loan term, and since premium payments are deducted from the loan amount (or integrated into the repayment), there are not any additional transactions. If the insured event occurs, the benefit goes to the lender rather than the borrower, so there is little risk of fraud.



Table 3.1 Diversity and Complexity of Life Insurance Products

Simple	Moderate	Complex	Highly Complex
● Credit Life	● Term Life	● Cash Value Policies (e.g., endowment and whole life)	● Annuities

Moderately complicated life insurance includes term and life savings. A **term policy** provides life coverage for a fixed period of time (the “term”), often one to five years. The benefit, or **face value** of the policy, is predetermined in the insurance contract. Term policies are usually guaranteed renewable, which means that they can be renewed at the end of the term without proving insurability up to a certain age. The benefit in a **life savings** product is linked to the amount of savings that a person has in an account. Popularised by credit unions as a means to promote savings, premiums on this group policy are paid by the financial institution to an insurer based on a multiple of the total value of savings accounts. Depositors implicitly assume a lower interest rate on their savings in exchange for this member benefit. In the event of death, beneficiaries receive a payout equal to a multiple (usually double) of the savings in the account up to a maximum amount.

The next layer of complexity arises from longer periods of cover and policies that accumulate a cash value. **Cash value policies** combine death protection with savings accumulation. An endowment policy is similar to term insurance except that if policyholders survive the term, the insurer pays them a lump sum. A whole life policy is basically an endowment policy with a really long term—until the policyholder is 100 years old. Another variation of cash value policies is universal life, which is similar to whole life except that the premium payments and corresponding benefits are usually linked to short-term interest rates so they vary periodically. Cash value policies have the advantage of allowing policyholders to borrow against them, which make them more versatile in providing risk protection than term policies. The premiums for cash value policies, however, are much higher than for term policies, often ten times higher or more.

Lastly, **annuities** are among the most complex life insurance products. Annuities are basically retirement savings plans that pay policyholders a regular payment until they die—if they die before a certain age, then beneficiaries earn either a lump sum or a series of payments. There are two periods associated with annuities: the accumulation period when the

policyholder pays premiums, and the payout period when the insurer makes payments to the policyholder.

Because of their longer terms, and accumulating cash values, calculating the premiums for annuities and cash value policies requires a complex pricing model that factors in assumptions about expected changes to distant mortality rates. Even for a ten-year policy, morality rates in many countries could change significantly during the course of the term.

The pricing for long-term policies is also complicated by the need to estimate investment income, since the return on invested premiums is a significant means for insurers to generate revenue. Furthermore, in inflationary environments, insurers must make adjustments to maintain the real face value of policies. Managing long-term insurance policies requires prudent investment and reserve practices. An insurer offering long-term policies also has to have policyholders' trust and confidence, which is usually strengthened through close regulatory oversight.

KEY TERMS and CONCEPTS



- ✓ Annuities
- ✓ Cash value policies
- ✓ Credit life
- ✓ Disaster insurance
- ✓ Face value
- ✓ Health insurance
- ✓ Life insurance
- ✓ Life savings
- ✓ Property insurance
- ✓ Term life

3.2 The Five Recommended Products

Even the simplest insurance product can be more complicated than a credit or savings product. While there may be scope for MFIs to offer life savings and cash value policies in the future, this manual presents five basic insurance products that are variations of credit life and term life policies (Figure 3.2).



The Five Recommended Products

3.2

CREDIT LIFE

Coverage for the outstanding balance (plus lost interest) of the loan if the borrower dies.¹⁵

CREDIT DISABILITY

Coverage for the outstanding balance (plus lost interest) of the loan in the event of permanent disability.

ADDITIONAL BENEFIT

A term life policy for borrowers that corresponds with the loan term. If the borrower dies during the loan term, their beneficiaries would receive a fixed payout to cover funeral and other immediate expenses. In this manual it is called an Additional Benefit because it is sold with Credit Life (and perhaps with Credit Disability too) and therefore the benefit is in addition to the outstanding balance of the loan, which is covered by the other policy.

ADDITIONAL LIVES

Always sold with Additional Benefit, this term life policy covers a certain number of additional household members. The Insurance term corresponds to the loan term.

CONTINUATION

This one-month renewable term policy is a continuation of the Additional Benefit policy. An MFI's clients could purchase this product at the end of their loan term if they wanted to have insurance coverage without borrowing another loan.

These short-term, credit-linked products represent building blocks. Beginning with **Credit Life**, each builds on the systems and experiences of the previous product. For example, if an MFI has effective systems to manage a **Credit Life** product, it is easy to add **Credit Disability**, and not too complicated to offer an **Additional Benefit** policy. It is anticipated that these products would be introduced one-by-one over a period of years as the MFI develops expertise, although of course an MFI need not provide all of them.

As complexity of these products increases, so too does the value for policyholders. With **Credit Life** and **Credit Disability**, the protection largely accrues to the MFI since insurance reduces its credit risk. Market research is unlikely to reveal any demand for these products partly because borrowers may assume that the MFI (unlike informal moneylenders—see Box 3.1) will be reluctant to collect the debt from the surviving relatives.

¹⁵ There is some debate as to whether Credit Life should cover future "lost interest." On the one hand, when a borrower dies and the claim is paid, the MFI will be able to lend the money anew. On the other hand, the costs associated with recruiting and screening new clients can be quite high. So the death of borrower, particularly a repeat client with a relatively large loan balance, can adversely affect profitability if the capital is then loaned to new clients who are expensive to serve.

The Debt Dies with the Debtor

*The Debt Dies
with the Debtor*

3.1
BOX

If a borrower dies, informal lenders usually try to collect outstanding loans from his or her relatives. Claims on outstanding debts are often hard on relatives who are faced not only with the cost of a funeral but also the loss of a household income earner. In extreme cases, if the borrower's relatives cannot pay back the loan, they might have to work for the moneylender to pay off the debts.

One of the many reasons for the success of credit unions is that they sell credit life insurance along with their loans. Credit union borrowers know that if they die their relatives will not be forced to repay the debt, or worse, succumb to a life of bonded labour.

Experience with **Credit Life**, however, lays an important foundation for the provision of insurance that can reduce the vulnerability of low-income households. The other three products—**Additional Benefit**, **Additional Lives** and **Continuation**—provide increasing risk managing value to clients. If MFIs are providing insurance mostly in-house, it is strongly recommended that they develop expertise in managing **Credit Life** before they consider offering these three customer-focused products.

The remainder of this chapter describes the following facets of the five products, which are also summarised in Table 3.2 on the following pages:

- Insurable event
- Eligibility
- Screening
- Waiting period
- Exclusions
- Policyholder fraud
- Benefit
- Term
- Compulsory or voluntary?
- Premium collection method
- Lapses and renewals



Table 3.2 The Five Products

	Credit Life	Credit Disability	Additional Benefit	Additional Lives	Continuation
Insurable Event	Death of the client	Permanent disability to the client	Death of the client	Death of a nominated household member	Death of the client
Eligibility	Client	Client	Client; this must be sold with a Credit Life Policy	Specified members of the client's household (with age restrictions); this must be sold with Additional Benefit	Client with previous Additional Benefit cover
Screening	Credit screening with tactful scrutiny by a loan officer	Visual screening by the loan officer	Credit screening with tactful scrutiny by a loan officer	Visual screening by the loan officer	Previous credit screening
Waiting Period	None	None	One loan cycle or four months, whichever is longer	Two loan cycles or six months, whichever is longer (from the date of notification)	None as the client has already gone through the waiting period for the Additional Benefit policy
Exclusions	Suicide	Self mutilation, and specified pre-existing conditions	Suicide	Suicide, possible age exclusions	Suicide
Selection	Use existing clients	Use existing clients	Use existing clients	Credit officer check additional members	Use existing clients that have just paid their last instalment

	Credit Life	Credit Disability	Additional Benefit	Additional Lives	Continuation
Policyholder Fraud	Disqualification from future services	Disqualification from future services	Disqualification from future services	Disqualification from future services	Disqualification from future services
Benefit	Various options related to the outstanding loan amount	Various options related to the outstanding loan amount	Adjust premium and benefit according to demand and affordability	Adjust premium and benefit according to demand and affordability	Adjust premium and benefit according to demand and affordability
Term	Same as loan term	Same as loan term	Same as loan term	Same as loan term	Single month renewable term
Compulsory / Voluntary	Compulsory	Compulsory	Voluntary or compulsory	Probably voluntary	Voluntary
Premium Collection Method	In advance deducted from the loan disbursement	In advance deducted from the loan disbursement	In advance deducted from the loan disbursement	In advance deducted from the loan disbursement	Monthly cash payments or savings deductions
Lapses	None possible	None possible	None possible	None possible	Any non-renewal should result in disqualification



Short Terms and Separate Policies

3.2

BOX

Short Terms and
Separate Policies

The building block logic, whereby each subsequent product builds on the systems and experiences of the previous product, results in significant overlaps between these five types of policies. Despite this overlap, these policies should be sold separately and not amalgamated into a single product. Separating policies helps both the MFI and client understand the different features of each policy.

Each product is designed to be as simple as possible to minimise ratemaking difficulties. Any effort to add flexibility by adjusting variables will complicate the pricing calculations. In particular, a fundamental design element of these products is that the term is for a year or less. They will need to be significantly modified if the terms are longer, for example if the MFI offers loans for terms exceeding a year.

Insurable Event

For **Credit Life**, **Additional Benefit** and the **Continuation** products, the insurable event is the death of the policyholder. In the case of **Additional Lives**, the death of nominated members of the policyholder's household constitutes the insurable event.

It is harder to define the insurable event with **Credit Disability** because disability can be defined in different ways. To avoid confusion and potential claims disputes, it is vital to strictly define the insurable event and to limit coverage to those disabilities that are: a) easily verifiable and b) unlikely to promote moral hazard behaviour. The following scale is recommended:

Many insurers that offer disability insurance place copies of their policies on the Internet. While it is never a good idea to copy a policy of other insurers, it is useful to look at what they include and exclude. Notice how careful and specific the policies are and how insurers go to great lengths to avoid using words and phrases that could lead to misunderstanding.

- The physical loss of (rather than the loss of use in) one hand or one foot
- The physical loss of (rather than the loss of use in) of one thumb AND one index finger on the same hand
- Blindness in both eyes, except caused by cataracts
- Paraplegia—total and irreversible paralysis of both lower limbs
- Hemiplegia—total and irreversible paralysis of one arm and one leg on the same side of the body

The loss of limbs and digits are easy for a field agent to validate. With paralysis, an MFI might require a doctor's note to confirm that it is a permanent rather than temporary disability. Blindness is also not too difficult to verify, but with blindness there is an important complication. In developing countries, especially in the equatorial region, there is a high incidence of cataracts. The inclusion of cataracts in the disability policy would expose the organisation to an adverse selection problem. Because blindness from cataracts is progressive, someone who was recently diagnosed could obtain a loan with the knowledge that they will become blind over the next few loan cycles and have their debt written off.

Some disability policies also pay out when policyholders lose their big toe, but this insurable event is not recommended. Disablement policies can create an economic value for the client's body parts and hence a moral hazard. While it is unlikely that policyholders will mutilate themselves, if the loan is large enough a policyholder may consider cutting off a toe or finger. This may sound far-fetched, but in the United States people have been known to sell their organs to pay off debts (e.g., kidneys for transplants).

Public relations problems stemming from potential disputes over what is and is not covered could generate more costs than benefits, hence the effort for extremely clear stipulations regarding the insurable event. Box 3.3 highlights some of challenges of achieving crystal clarity.

Death by Accident vs. Death by Disease

*Death by Accident vs.
Death by Disease*

3.3
BOX

It is relatively common for insurers to sell cover in which the insured event is "death by accident." An insured event specified in this manner, however, is likely to cause confusion and increase transaction costs. Loan officers who sell this product need to explain the difference between "death by accident" and "death by illnesses." Because there is considerable grey area between the two, it can cause staff training and public relations problems. Additional transaction costs come from challenges of verifying claims. For example, suppose a person has a car accident and receives an internal injury to an organ that he believes to have healed, and then he dies many months later of some disease that mostly (*but not only*) arises in people who have had an injury to that organ. The costs of determining the cause of death could prove very expensive. An MFI considering acting as an agent for an insurer selling "death by accident" cover needs to negotiate training for its credit officers in marketing and claims verification. It also needs to be aware of the antagonism that can arise if an insurer rejects a claim.



Eligibility

The essential reason for restricting eligibility is to prevent adverse selection. For the five recommended products, the formal link between insurance and credit is intended to positively select policyholders who, on the whole, are hopefully less risky than the general population. This is accomplished in two ways. First, since the client has undergone credit screening (either via group members or directly), the insurer can infer that if clients who are healthy enough—and young enough (see Box 3.4)—to receive a loan, they do not present a serious threat to a life or disability insurance scheme.

Enforcing Age Requirements

3.4 BOX

Enforcing Age Requirements

Most MFIs have an upper age limit for credit eligibility, usually around 65 or 70 years old. If applicants are above that ceiling, they are not supposed to receive loans because they represent a credit risk. In some MFIs, this tends to be a soft rule that many loan officers choose to overlook. Loan officers want to continue to lend to good borrowers even though they have hit the age ceiling, or they may even seek out older borrowers because they are deemed more reliable than younger clients.

This credit risk could be avoided if the MFI had a **Credit Life** policy, but the insurer would also stipulate an age ceiling. In fact, whether **Credit Life** is managed in-house or outsourced, for the pricing calculations to work, the age ceiling needs to become a firm policy that is strictly enforced.

Second, the insurance products presented in this manual are secondary to the loan. This secondary status controls for adverse selection because clients are unlikely to take out a loan as a means to get insurance. Adverse selection problems increase dramatically when insurance is sold separately. For this reason, this manual does not recommend that MFIs offer term insurance to the general public—once people have an opportunity to purchase insurance directly (instead of via a loan), it greatly increases the chance that high risk persons will seek insurance policies, which requires additional adverse selection controls.

Adverse selection problems increase dramatically when insurance is sold as an independent product, separate from credit or savings.

Eligibility requirements are complicated for the **Additional Lives** policy. It is vital that clients are not given a free hand to place whoever they chose on the policy because they are likely to select persons that they believe most likely to experience the insurable event. With **Additional Lives**, the loan officer must confirm that the people placed on the policy are indeed members of the household. It is important to specify the number of additional lives that can be insured. The greater the number, the greater the risk. The case of UMASIDA in Tanzania (see Box 3.5) highlights the risks of adding additional lives onto a policy, as well as the problems associated with sympathetic pricing and donor subsidies.

Pricing Problems and the Perils of an Additional Lives Policy—UMASIDA in Tanzania

3.5 BOX

Pricing Problems and the Perils of an Additional Lives Policy—UMASIDA in Tanzania

The UMASIDA project in Tanzania is an ILO-supported mutual health insurance scheme that is effectively bankrupt. One factor that undermined its financial health was allowing additional family members on to the policy without determining if they were actually family members or properly underwriting them. This allowed people to place the sickest members of their households on the policy, vastly increasing the risk to the insurer. As one UMASIDA member stated “now I can pay the health costs of my sick parents.”

UMASIDA’s management recognizes that poor pricing also contributed to the problem. They determined that comprehensive health care for the urban poor should cost about US\$1 *per person* per month. With concerns that members would not be able to pay this, some actual reluctance from the potential members, and a bit of donor money to provide short-term subsidies, they decided to charge US\$1 *per family* per month. Thus, they started out with two serious problems in their pricing: 1) they priced the product too low without any financial assessment; and 2) they got members to expect donor subsidies.

The donor subsidies (primarily for operations) quickly ran out and premiums were almost immediately recognized as too low. This required UMASIDA to increase prices several times, which was not well received by members. In addition, poor initial pricing undermined the attempt to build adequate reserves.

Adapted from McCord (2000a).

The **Additional Lives** policy must also define the characteristics of eligible additional lives, especially age. For example, it might cover one additional adult (besides the borrower) between 25 and 65 years of age and up to four children (persons less than 25 years old).¹⁶ High infant mortality rates may also encourage microinsurers to place an age floor on this policy—for example, it may not cover persons below 6 years old.

Although the **Continuation** policy is not tied to a loan, its design uses credit screening to establish eligibility. The **Continuation** policy is available to clients with **Additional Benefit** coverage who do not wish to renew their loans but want to continue the insurance coverage. The **Continuation** product is still secondary to the loan since customers will have to repay (at least) two loans to become eligible, and few clients are likely to borrow money primarily as a means to access insurance.

There should be no gap between the **Additional Benefit** cover and a **Continuation** policy. If clients decline the policy when they make their final loan repayment, they should not be allowed to take up the policy at a later date because it creates an adverse selection problem. For example, a few months after repaying her loan, a former borrower is diagnosed with tuberculosis. She might find that an opportune time to apply for an insurance policy, but she would only be eligible if she took out another loan and endured the specified waiting periods.

While eligibility is essentially a means for controlling adverse selection, it could also be used as a **loyalty incentive** to reward repeat customers with excellent repayment records. If the **Additional Benefit** and **Additional Lives** policies are voluntary products, for example, then the MFI could stipulate that only clients who have repaid three loans without delinquency could become eligible to purchase those products. Furthermore, if they do not maintain their sterling credit history on subsequent loans, then they could lose eligibility for the insurance coverage.

Screening

The costs of screening prospective policyholders for life or disability insurance can be very high. This is especially the case in areas where there is a scarcity of doctors. These costs are basically avoided with loan-linked policies because an assumption is made about the health of the client through the credit selection process, i.e., if they are deemed healthy enough to repay a loan then they are likely to be healthy enough to survive the term.

¹⁶ MFIs that are providing insurance under the regulatory radar, as a member benefit, may find that the **Additional Lives** policy, and perhaps even the **Continuation** policy, may not fit into this loophole.

This assumption, however, is not quite sufficient. Although not medical practitioners, loan officers should tactfully consider the health of loan applicants by keeping an eye out for telltale signs of health conditions, such as shortness of breath or a hacking cough. For **Credit Disability** it is also important for the loan officer to note if applicants have their limbs and digits and are not paralysed.

The **Additional Lives** policy is particularly hazardous for MFIs because the additional lives have not been screened for credit. It is advisable that the loan officer sees each household member on the list and ensures that they seem healthy. This is not an optimal solution, but it is better than relying on the waiting period alone. To protect against false claims, it is necessary to have some form of identification in the file, such as a photocopy of the additional persons' identification cards or a picture. This extra step for the **Additional Lives** product can significantly increase administration costs if not managed carefully.

Waiting Period

Insurance waiting periods reduce adverse selection risks by creating a gap between the time when people start paying for a policy and when they actually receive coverage. The greater the risk of adverse selection, the longer the waiting period should be. In the context of loan-linked insurance, a waiting period refers to the period between obtaining a loan and being able to obtain insurance.

With **Credit Life**, the adverse selection risk is relatively small since the MFI is effectively the beneficiary. If there were a waiting period for **Credit Life**—i.e., if coverage did not apply to initial loans—then MFIs would be stuck with the dilemma of what to do about the outstanding balance of a dead borrower. In addition, there are usually several weeks between when a new applicant inquires about a loan and when she actually receives it, so an additional waiting period for **Credit Life** (and **Credit Disability**) is probably not necessary.

Microinsurers should experiment with the waiting period and adjust it based on their own experience. A proposed scheme is presented in Table 3.3.



Table 3.3 Waiting Periods for the Five Products

Product	Severity of Adverse Selection	Waiting Period
Credit Life	Low	None
Credit Disability		None
Additional Benefit		1 loan cycle
Additional Lives		2 loan cycles; must give 6 months notice of intention to join
Continuation	High	None but must have had the Additional Benefit policy

The greatest challenge in controlling adverse selection is with **Additional Lives**. This difficulty first arises when a client identifies the persons covered by the policy. Nominations could be put forth at the end of the loan term *before* the client is eligible for **Additional Lives** so that the coverage could be in effect from the beginning of the client's eligibility period one loan term later. Alternatively, the client could name a series of additional persons at the beginning of the eligible loan, and have a waiting period (perhaps up to six months) before the coverage goes into effect. The first option requires administrative planning and foresight; the latter approach means that clients would be paying for coverage before they receive it.

The second adverse selection difficulty with **Additional Lives** occurs when existing policyholders want to change their roster. This situation raises red flags since there is a high likelihood that the client is trying to replace a lower risk person with a higher risk candidate. One solution is to forbid changes to the list and only give clients one opportunity to nominate their additional lives. If this control seems too severe and the MFI wants to allow changes, then any addition must endure a waiting period. It is suggested that policyholders should give written notice that they intend to place a new member on their policy and that person would then be covered 6 months after the receipt of that letter.

This waiting period is intended to protect the insurer, for example, from covering a relative who, after being diagnosed with AIDS, returned home to die. The longer the waiting period, the safer the scheme is from this risk, but if the waiting period is too long the scheme will appear unattractive.

Exceptions to this waiting period could be considered in some circumstances, such as the birth of a child if the policy covers infants. Another exception might be to replace existing members who no longer fall within the age boundaries. These issues with the **Additional Lives** cover highlight the administrative complications associated with this product.

Bear in mind that any change in policy design could have serious and unforeseen consequences, so any decision to alter these products should not be taken lightly.

Although it has a high adverse selection risk, the **Continuation** policy does not need an additional waiting period because the client has already passed through the waiting period for **Additional Benefit**. If they stop their **Continuation** policy, they can only resume it again by obtaining a loan first.

Exclusions

Exclusions in life insurance are usually designed to achieve one of three purposes: 1) to reduce moral hazard that gives incentives to policyholders to cause or increase the likelihood that the insured event will occur; 2) to reduce the adverse selection problem caused by people who have been diagnosed with progressive illnesses; and 3) to protect the insurer from covariant risks.

For life policies, suicide is generally excluded as it presents a moral hazard problem. Two other common moral hazard exclusions include a) driving while intoxicated and b) participating in an illegal activity. As exclusions, if a policyholder dies from these causes, the insurer is not obliged to honour the claim. Similarly, a common exclusion for **Credit Disability** is self-mutilation, although it may be hard to prove. As discussed above, it is also recommended that blindness caused by cataracts should be excluded for adverse selection reasons.

Because of covariant risks, which can affect a large percentage of the risk pool at once and potentially bankrupt an insurer, it may be advisable to exclude coverage of death due to:

- War, invasion or acts of foreign enemy
- Other hostilities including civil war, rebellion and revolution
- Riots and civil unrest

Bear in mind that an exclusion needs to be verifiable and clearly defined to be enforceable. Exclusions are tricky. They must be clearly communicated to the policyholder in advance and regularly reinforced to avoid false expectations. While an insurer wants to reduce its exposure to these risks, it may find that exclusions can cause public relations problems from people who think that they should be covered and they are not.

More experience with exclusions and *microinsurance* is required to see if a different approach to exclusions is warranted with the low-income target market than commonly used by the insurance industry. For example, while suicide is a logical exclusion for **Credit Life**, it does not solve the MFI's problem of having to claim the outstanding balance from the family. And if MFIs start rejecting claims based on exclusions, they may have difficulty maintaining the trust of their clients even if the exclusions are legitimate. It is also worth noting that changes to exclusion policies can reap public relations benefits, as highlighted in Box 3.6.

Public Relations Advantages of Changing Exclusion Policies

3.6
BOX

Changes to exclusion policies can add marketing value, as experienced by FINCA Uganda and its partner the American Insurance Group (AIG). The AIG/FINCA Uganda Personal Accident policy originally excluded death due to AIDS. However, since AIDS was very rarely identified as the actual cause of death, AIG decided to remove this exclusion because the public relations value of covering death due to AIDS was greater than the additional claims that it expected to incur.

Policyholder Fraud

Fraud is countered in a number of ways most of which are operational and will be dealt with in the sections on operations and financial management (Chapters 4 and 6). With respect to policy design, it is advisable to have a clause in the policy document that states that any policyholder that submits a fraudulent claim will be disqualified from ever obtaining any financial service from the MFI. Borrower groups may also be able put pressure on members not to submit fraudulent claims if the entire group would lose eligibility from future financial services.

Benefit

Although the **Credit Life** and **Credit Disability** products are the simplest to administer, the varying benefit amount complicates ratemaking. The benefit is the outstanding balance of the loan, but that changes with each repayment. Furthermore, the MFI needs to decide whether it wants to recoup just the

outstanding principal, or to also cover the foregone interest that it would have earned if the loan had been repaid according to the contract. The method for calculating foregone interest would vary depending on whether the interest rate is on a declining balance or flat basis; the calculation would also depend on the type of product, for example it is more difficult to estimate the lost interest on a line of credit than a term loan.

In the **Additional Benefit** and **Continuation** policies, the benefit is a fixed amount. To simplify things, it is recommended that MFIs only offer one or two benefit amount options initially. To determine the appropriate face value of the policy, the MFI needs to assess demand in two ways. First, it should determine the average costs that households incur in the event of death, including funeral expenses and the short-term loss of income. Second, market research needs to assess what premium amounts people could afford or would be willing to pay. Between the cost of death and premium affordability, MFIs should be able to hone in on an appropriate benefit amount (also see Chapter 7 for guidelines on pricing a benefit).

The benefit amounts for the **Additional Lives** policy are linked to the **Additional Benefit** amount, but they vary by household member. It is recommended that the face value for the additional adult life is 50 percent of benefit for the **Additional Benefit** or primary policyholder, and the benefit for children is 25 percent of that amount. These ratios are used in the AIG/FINCA Uganda Group Accident Policy described in Box 3.7.

AIG/FINCA Uganda—Benefits from the Group Personal Accident Policy

3.7

BOX

- Death by illness – loan cover
- Death by accident (client) – loan cover plus US\$800
- Death by accident (spouse) - US\$400
- Death by accident (each “dependent” up to 4) - US\$200
- Disability (client) – loan cover

Note: Uganda’s GDP per capita in 1998 was US\$310; FINCA Uganda’s average outstanding balance at the end of 1999 was US\$60 and average loan term was 4 months.

Source: McCord (2000b).

3.7

There are several reasons why the additional household members warrant lower benefit amounts. First, it is difficult to screen the nominated persons, so the MFI is vulnerable to persons with chronic illnesses being placed on this policy. Restricted benefits reduce the impact of this occurrence. Second, there is significant covariant risk with **Additional Lives** because the household is often exposed to similar perils, such as the entire household dying in a bus accident or a fire. Third, it is logical for the primary policyholder to have a larger benefit since presumably she is running a business that is generating a key source of household income. Her death benefit should therefore cover her funeral expenses plus a few months of lost income to assist the household through a difficult transition period. The lower benefit for children is also justified since their funeral costs tend to be lower.

Term

For a claim to be valid, the insured event must occur during the policy term. For all policies associated with loans, the length of the policy is dictated by the loan term. For **Credit Life** (and **Credit Disability**), the loan and insurance terms should be exactly the same. The only potential confusion might arise if a client still has an outstanding balance after the end of the loan term, and then dies. Technically, that should not be covered by the insurance policy.

For the **Additional Benefit** and **Additional Lives** policies, MFIs need to decide whether the two terms should be exactly the same or whether the insurance term should be slightly longer. MFIs may encounter situations in which clients have applied for repeat loans but have not yet received them. If clients die during this in-between loan period, they would not be covered by the policy unless the insurance term extended somewhat beyond the loan term.

With the **Continuation** policy, a one-month renewable term is recommended. From the insurer's perspective, longer-term policies increase the complexity of ratemaking and therefore raise the risk of inadequate premiums (especially in inflationary environments). Plus, a one-month renewable term with single premium payments allows the insurer to avoid premium lapses (although it still has to deal with policies that are not renewed). From the client's perspective, the **Continuation** policy provides life cover during periods when they do not want a loan—they may want to borrow again three months later, nine months later, or never. A one-month renewable term gives clients the flexibility to fill any size gap between loans.

Another reason terms are kept short, for all of the products, is to avoid having to vary premium rates during a policy contract. It is important, however, to inform

clients that premiums may vary from one policy to the next. Microinsurers should not make long-term commitments to specific premium rates, as they need to be adjusted based on claims experience and inflation.

Compulsory or Voluntary?

As discussed in Chapter 1, there is no easy answer to the question: “Should insurance be voluntary or mandatory?” Of the five products, **Credit Life** and **Credit Disability** should definitely be compulsory as they primarily benefit the MFI. Few if any customers would purchase these products voluntarily. At the other extreme, by definition the **Continuation** policy has to be voluntary. But the situation is less clear with the **Additional Benefit** and **Additional Lives** policies.

The **Additional Benefit** policy could be either. If it was compulsory, the MFI could be assured of a large number of participants, simplified administration systems, and low adverse selection risk. But if clients resent having to purchase this product, and it negatively affects customer loyalty, then the disadvantages of compulsory cover may outweigh the advantages.

Although feasible, it may be difficult for the **Additional Lives** policy to be compulsory since some borrowers may live alone, or they may not have other household members that fit within the age parameters. In which case, they would probably begrudge being forced to buy an insurance product that does not pertain to them.

Voluntary insurance products will always be more expensive than compulsory products for two reasons. First, because of adverse selection, where a high percentage of riskier people will opt in, the risk premium needs to be higher. Second, a voluntary feature adds administrative and sales costs as field staff have to spend time persuading clients to buy the policy and then have to keep track of who is in and who is out. On the other hand, voluntary products can be used as carrots to reward the organisation’s best clients—for example, if they repay 3 loans without a late payment, then they are eligible to purchase new insurance products.

Premium Collection Method

With the loan-linked insurance products, premiums payments are integrated into the lending process. For the **Credit Life**, **Credit Disability**, **Additional Lives** and **Additional Benefit**, there are two ways this integration could occur. Either the entire premium payment is taken out of the loan amount upfront (or

the loan size is increased by the premium amount), or regular premium payments are made together with the loan instalment.

The first option—upfront payment—is strongly recommended. The administration, ratemaking and accounting are far simpler if the entire premium is paid upfront. An upfront payment also avoids premium lapses that could occur with the second option if clients are behind in their repayments. A possible concern about the upfront premium payment is that some borrowers may know that they are going to die in the coming months, and since they have paid the premium for the whole loan term, they may choose not to repay any of the loan. An MFI could address this issue if it includes in the insurance contract a clause that voids the policy if the loan is more than a certain number of days overdue.

The primary justification for integrating the premium payments with the loan instalments would be if the premium was too large and clients were uncomfortable about it being taken out of the loan amount. Also, clients may complain about paying interest on the premium. For example, if the loan is for US\$500 and the premium is 2 percent, the MFI would pay the US\$10 premium and only give the borrower US\$490, but the client would still pay interest on US\$500.

With the **Continuation** policy, premium collection becomes more difficult since the transaction can no longer be piggybacked on top of the loan. There are three different approaches to premium collection that an MFI can consider:

- **Client payment:** If the MFI's retail outlets are conveniently located and teller lines are short, then it could be advantageous for the client to bring the premium to the MFI every month to renew their policies. This arrangement gives the MFI face-to-face interaction with the client, which creates an opportunity for relationship management and cross selling without incurring major transaction costs.
- **Door-to-door collection:** Busy customers may prefer a door-to-door collection method, which would probably increase the likelihood that customers continue to renew their policies. The associated administrative costs, however, may make this payment method too expensive. Plus this arrangement increases the MFI's vulnerability to fraud and security risks.
- **Automatic deduction from savings:** From a costs perspective, the most efficient solution is to deduct the premium from the client's savings account each month—however, this only works for MFIs that offer savings services. As shown in Box 3.8, experience in India found this to be the clients' preferred method.

Low-income clients, particularly those with irregular income streams, may have difficulty of paying the entire premium in a single payment. In South Africa, informal funeral insurers issue receipt booklets that allow policyholders to make small payments whenever they have some cash on hand. The policy remains valid as long as clients are up-to-date by the end of each month.

Premium Collection by MFIs in India

3.8
BOXPremium Collection
by MFIs in India

In India, MFIs use a variety of methods to collect premiums. ICNW collects the premium for its life insurance policies from its members' savings accounts. CDF and LEAD add the premium amount to the original loan, and deduct the entire premium in advance when they disburse the loan. ICNW's health insurance and ASA's cattle insurance scheme require the members to pay the premium separately.

Adding premiums to loans or savings makes the premium collection easier than collecting it separately. The administrative costs are lower and it removes the possibility of premium lapses. Client surveys among these Indian MFIs found that policyholders preferred paying insurance from their savings account rather than having the premium added to the loan as the interest burden was higher with the latter arrangement.

Adapted from Srinivasan and Arunachalam, forthcoming.

Lapses and Non-renewals

With an upfront premium payment for the four loan-linked products, it is not possible to experience lapses. This arrangement is particularly beneficial to microinsurers because clients do not have to be up-to-date with their loan to receive coverage, as long as the insured event occurs during the insurance term.¹⁷ This protects the MFI from the common situation of a client falling ill, getting behind in her payments, and then dying. If the premium were integrated into the loan repayment, instead of paid upfront, then a claim in this case would not be valid.

For the **Continuation** policy, upfront payments for the one-month renewable term also prevent lapses, but the insurer is still vulnerable to non-renewals, which are essentially the same thing. Non-renewals are more serious than late loan payments because they represent an adverse selection problem. If a client

¹⁷ As noted above, it might be wise to put a ceiling on the number of days late that is allowed for the policy to remain in force.



is several months behind in her premium payments and then she decides that she wants to become current again, the insurer has to suspect that she thinks there is a high likelihood that the insured event will occur.

Consequently, it is strongly recommended that policyholders be disqualified from future coverage if they do not regularly renew their policy each month. They should not be allowed to re-apply at their own discretion. Some insurers may permit a one-month **grace period** to accommodate oversights or cash flow problems. A disadvantage of a grace period is that it may send a different message to clients than the strict discipline required for loan repayments.

KEY TERMS and CONCEPTS



- | | |
|---------------------|-----------------------------|
| ✓ Age requirement | ✓ Lapses |
| ✓ Benefit | ✓ Loyalty incentive |
| ✓ Compulsory | ✓ Premium collection method |
| ✓ Death by accident | ✓ Renewals |
| ✓ Death by disease | ✓ Screening |
| ✓ Eligibility | ✓ Short term policy |
| ✓ Exclusion | ✓ Term |
| ✓ Grace period | ✓ Voluntary |
| ✓ Insurable event | ✓ Waiting period |

Further Reading on Product Features

- Roth, J., 1999, “Informal microinsurance schemes—the case of funeral insurance in South Africa,” Geneva, Switzerland: ILO Social Finance Programme, www.ilo.org/socialfinance.
- McCord, M., 2000a, “Microinsurance: a case study of an example of the mutual model of microinsurance provision—UMASIDA,” Nairobi, Kenya: MicroSave-Africa, www.microsave-africa.com.
- McCord, M.J., 2000b, “Microinsurance in Uganda: a case study of an example of the partner-agent model of microinsurance provision—AIG/FINCA Uganda—group personal accident insurance,” Nairobi, Kenya: MicroSave-Africa, www.microsave-africa.com.

INSURANCE OPERATIONS

The purpose of this chapter is to:

- *Articulate the major functions of an MFI's back office and field operations in the design and delivery of insurance products*
- *Identify key points of vulnerability to fraud and highlight means to address them*
- *Describe operational modifications that may be necessary for an MFI to introduce insurance products*
- *Determine the functions that could be outsourced to other parties to minimise disruption to the MFI*

Offering microinsurance will require an MFI to undergo a range of operational changes. Loan officers, accountants and other staff members will have important new responsibilities that should be seamlessly integrated into their work routines. The products recommended in this manual were designed so that few dramatic changes to operations are needed. The impact of insurance on the MFI, however, will depend on the scale of operations, which products are offered and the degree of outsourcing. This chapter is organised into two sections to describe the effect that insurance provision can have on the front and back office operations. The decision to outsource affects the back office operations more than the field activities because many of the head office insurance functions can be farmed out to an insurer or an insurance consulting company.

4.1 Back Office Operations

Back office operations cover the activities of personnel who do not have direct customer contact, including senior management, finance and administration, human resources, research and development, and the internal auditors. This section provides an overview of how the head office will be affected by the insurance business—subsequent chapters cover certain aspects in more detail, including accounting and financial management in Chapter 6 and pricing in Chapter 7.



FIGURE
4.1

Back Office Operations at Fireman's Fund



Fireman's Fund Insurance Co. Underwriters' Office, Boston, MA (1921).

Senior Management

Senior management and the board of directors have two major responsibilities pertaining to the provision of insurance. First, they are responsible for identifying, negotiating and maintaining **outsourcing relationships** with insurance companies or consultants. As discussed in Chapter 5, for an MFI to reach a mutually beneficial agreement with an insurance company, it needs to be arranged by a skilled negotiator, who has a basic understanding of the insurance business and sufficient clout. Even if an MFI chooses not to outsource, that decision should only be reached after senior managers have explored various partnering options that might be available.

Second, senior management plays the role of **visionary and key motivator**.

The Board Chair, the CEO and the senior management team must provide a clear vision for the MFI—articulating how insurance fits into the big picture—and then motivate and guide staff toward fulfilling that vision. One of the major obstacles to introducing a new product—or in the case of insurance, of entering a new type of business—is a natural **resistance to change**. Senior managers have to find ways of getting the organisation to overcome inertia and to get staff to embrace the insurance products as an integral service that will enhance the MFI's ability to fulfil its mission.

Resistance to change: "We cannot direct the wind, but we can adjust the sails."

Finance and Administration

Of the back operations, an MFI's Finance Department will probably be affected most by the addition of the insurance business, especially if the MFI chooses to do most of the work in-house.

For **accounting** purposes, if the products are managed in-house, the MFI should manage a separate chart of accounts and a set of books for the insurance business. Although the financial statements will be similar to the MFI's savings and credit operations, there are several specialty accounts that are required for life insurance. With regard to **financial management**, the insurance products will also require new reports, performance ratios and analysis. In addition, the MFI needs to place the premium revenue in secure and liquid investments—not in its loan portfolio—and must manage appropriate claims and contingency reserves (see Chapter 6).

One of the most difficult aspects of offering insurance is **premium setting** (see Chapter 7). Where possible, it is highly recommended to outsource this activity to an actuary. Even if ratemaking is outsourced, MFIs still need to **track administrative expenses** associated with insurance provision—including the time spent by loan officers, data clerks and managers, as well as a portion of overhead expenses—so they can be factored into the pricing calculations (see Chapter 6). If the MFI already conducts regular costing exercises for its products, it will greatly ease the work involved in costing for insurance.

Critical to the success of a new insurance product is an efficient **claims processing** system. If the MFI (or its insurance partner) does not pay claims within a week, it may lose the trust of its clients. MFIs with decentralised operations will have a significant advantage if the branch or regional manager can approve and issue a payment almost immediately. This arrangement, however, increases the MFI's vulnerability to fraud. If the head office processes claims, the organisation must find a way to expedite the requests.

A microinsurer's **management information system** (MIS) will require modifications to provide all the additional information required to manage an insurance scheme, including additions to the accounting system to maintain separate insurance books and produce new performance reports. Additionally, customer information files will need to track details of all insured clients and relevant mortality information.

Depending on the MIS in place and the insurance product offered, these changes might necessitate specialised software. For example, the **Additional Lives** product requires additional fields for the names and birthdays of the other household members on the policy, as well as a trigger to indicate when persons no longer comply with the age parameters. The **Continuation** product, which is not linked to a loan, may require new software altogether. These issues should be resolved before individual products are rolled out.

Claims should always be paid as quickly as possible. Payment within a week is a good rule of thumb for death claims. Disability claims may take longer. Whatever the type of claim, management needs to set clear goals for speedy payment and work hard to ensure that claims are paid within the set time. Every time a payment deadline is not met, management should investigate, and take corrective action.



Human Resource Department

The human resource department is primarily responsible for three tasks: hiring, training and compensating staff members.

The provision of insurance will only require **hiring** additional personnel if the MFI operates on a large scale, offers multiple products, and intends to perform the insurance functions largely in-house. In general, the addition of insurance products is unlikely to change the job requirements for most positions. One possible exception is senior staff in the finance department who would require expertise in pricing, risk assessment, and insurance management if the MFI does not outsource these functions.

Training with the new products is primarily for field staff, although relevant administrative personnel may also benefit. An insurance training programme, which should be conducted partly by external experts, at least initially (see Box 4.1), includes three elements:

- **Insurance Concepts:** While they do not need to know the details of how to price and design an insurance policy, field staff should understand basic concepts such as risk pooling, adverse selection and moral hazard. For example, it is critical that they understand why they are asking for a death certificate when processing a claim and why they should consider the applicant's health before recommending them for a loan.
- **Sales:** Although the emphasis will differ for voluntary and mandatory products, loan officers need to recognise that they have an important sales function. Training on sales techniques may also improve their ability to sell their savings and loan products as well.
- **Service:** Often training emphasises sales at the expense of service. One of the biggest criticisms of insurance companies worldwide is that they gladly take one's premiums, but when the insured event occurs the insurer moves slowly and tries to find reasons for rejecting the claim. For MFIs to maintain the trust of their clients, they have to prove that perception false by being extremely diligent and responsive in servicing claims. Staff training, therefore, should stress the critical service aspect.

Most of the proposed insurance products need not affect an MFI's existing **compensation** system. Consequently, loan officers may be asked to assume more responsibilities without a corresponding increase in salary. If management is unable to convince loan officers that the provision of insurance assists them to achieve their existing objectives better, then it may have to raise salaries to enhance staff acceptance of the insurance products—but only if the organisation experiences a corresponding increase in income. Once an MFI

starts offering voluntary products, then it can consider appropriate performance incentives, as discussed in Section 4.2.

Human Resources for SEWA's Insurance Services

4.1 BOX

SEWA has developed a small team to manage the insurance program. The SEWA insurance board sets policy, decides on service packages and premiums, and supervises the insurance management unit.

The insurance management unit consists of two full-time people who manage administration and operations. In addition, SEWA benefits from the part-time support of a GTZ technical advisor, formerly an insurance specialist with United Indian Insurance Company (UIIC) and an early collaborator with SEWA's insurance programme.

The insurance scheme relies on direct contact with members through an integrated team of field workers. Six field staff work full-time with SEWA's insurance program. In addition, SEWA's banking cooperative and health workers work part-time with the insurance program during peak periods, such as high claim periods (e.g., after floods) or during campaigns to register new members. In this way, an additional 25 to 50 workers can be mobilized quickly to work with the insurance program, which is a definite benefit of working within SEWA's integrated structure.

The insurance scheme's small cadre of management and field staff currently work with over 29,000 insurance clients, and this is a very lean operation. In the business plan under development, SEWA would strengthen this small team by adding financial managers, a professional actuary, claims processors, a marketing and service specialist, and many more field staff to manage the projected growth to a half million policyholders in five years.

Initially, SEWA's insurance partner, the LIC insurance company, provided staff training in insurance concepts and marketing techniques for the new products. SEWA's insurance program now organizes its own orientation for field workers to explain the benefits, pricing, claims procedures, and other aspects of operations. This orientation is vital to ensure uniform service delivery; it is especially important for field workers from the health services network and banking cooperative who do not work full time on the insurance program.

Adapted from McCord, Isern and Hashemi (2001).

Research and Development

Regardless whether an MFI has a formal R&D Department, research and development functions will be critical to the successful launch and continued improvement of the insurance products. If an MFI does not have an R&D department, then it should consider establishing a cross-functional committee, with field staff participation, to oversee the development of the insurance products (see Box 4.2). R&D responsibilities include:

- Conducting **market research** so that client preferences and behaviours are factored into the product design. Focus group discussions and other participatory methodologies seem to most effectively accomplish this objective.
- **Pilot testing** a prototype product in selected branches to work out the kinks in the product design and delivery procedures that will inevitably arise. Even a relatively simple product like **Credit Life** should be tested for a loan cycle or two before introduced more widely.
- Developing a **marketing strategy** and materials for client education and sales, including a Frequently Asked Questions (FAQ) sheet so that loan officers provide correct and consistent information to clients. Also consider developing a picture presentation to help illiterate clients understand insurance. The content needs to convey the impeccable reputation of the microinsurer—it is trustworthy, above reproach, and it cares.
- **Ongoing monitoring** and making necessary improvements. Even the most well conceived product will require refinements, and this is particularly true with insurance because the pricing needs to be adjusted based on experience.

Internal Control

To reduce its vulnerability, an MFI maintains policies and procedures that form its internal control system. Selling microinsurance requires a whole new set of internal controls. These internal controls, typically designed and overseen by an independent internal audit department, include *preventive* and *detective* aspects. **Preventive controls** inhibit undesirable outcomes from occurring, while **detective controls** identify undesirable outcomes that have happened. This section first describes the preventative methods used to reduce the likelihood that insurance fraud will occur. It concludes with a description of methods for monitoring policy compliance and detecting possible fraud.

R & D Committee and the Product Development Process

4.2 BOX

R & D Committee and the Product Development Process

Product development requires a tireless commitment from a core research and development team, which includes representatives from each operational department. This **cross-functional representation** accomplishes two objectives. First, it ensures that the R&D process will consider the implications of the product on all aspects of the organization. Second, it creates a broad base of ownership over the new product that will help to overcome inevitable resistance.

It is not critical that departmental representatives are senior personnel. Sometimes the inclusion of a few junior staff members brings fresh ideas and less biases.

The team leader is known as a **product champion** because she or he is responsible for managing the development process. The success of the product development depends on the champion's ability to motivate the team and forge a consensus.

The R&D team should keep the entire organization updated on their activities and solicit suggestions throughout the process from employees who are not directly involved. If the R&D team is perceived as a secret club operating in isolation, it will encounter tremendous resistance when it is time to roll out the product. But if the team is communicative and participatory, it is likely to find a receptive audience at the end of the process.



Fraud Prevention

With microinsurance, the areas of particular vulnerability to fraud are: a) premium collection, b) screening, c) waiting period and d) claims.



**Areas of Particular Vulnerability to Fraud in
Microinsurance are:**

1. Premium Collection
2. Screening
3. Waiting Period
4. Claims

The risks associated with **premium collection** are greatest with the **Continuation** policy, and to a lesser extent **Additional Lives** and **Additional Benefit**. Voluntary products are more vulnerable to fraud than compulsory products because loan officers could pocket the premiums and say that clients chose not to purchase the insurance. Fraud is less of a problem where the premium is deducted from the loan amount as long as clients are aware that they should not make any additional payments to the loan officer.

To prevent fraud with **Continuation** premium payments, MFIs should use official numbered receipts (in triplicate)—one each for the client, branch and the accounting department—that include the client's name and contract number, the date, the amount and signature of the cash recipient. The MFI should also require someone other than the loan officer, such as the branch manager, to inform policyholders that they must have official receipts covering the period of the claim. At the end of every day the amount of premiums should tally with the receipts issued. On a daily basis a staff member should sign a separate book to confirm that she has checked that the premiums received are equal to receipts issued, and this should be reconfirmed at the head office through account reconciliation.

The five products were designed to reduce the burden of insurance **screening** by relying primarily on credit screening. The two exceptions are the **Credit**

Disability and **Additional Lives** policies where additional screening is required. With the former, loan officers have to verify that clients do not have pre-existing conditions; with the latter, staff members should ensure that the additional persons on the policy a) exist, b) actually live in the household and c) are reasonably healthy. The primary preventative control for screening is staff training, so that field staff appreciate the importance of complying with the screening policies.

Fraud is possible in situations where policyholders need to give notice that they wish to receive cover or additional cover. In such cases it is important for the applicant to give such notice in writing. It is not recommended that confirmation of **waiting periods** be left solely to the loan officer as this introduces opportunities for fraud. For example, if the staff member issues waiting period receipts without a second party signature, then it may be possible for clients to bribe the loan officer to backdate the receipts.

The final vulnerability point involves **verifying and paying claims**. Because field staff may have something to gain from approving a claim—improved portfolio quality—they are not ideal claims verifiers. However it is probably not cost effective or timely for an MFI to involve other staff members in claims verification. The costs of additional personnel and delays in claims processing are difficult to justify. For internal control purposes, the branch manager should sign off on all claims applications. If possible, claims payments should be paid directly into a beneficiary's account to avoid the exposure that occurs when cash changes hands. (As noted at the end of this chapter, however, for public relations reasons, an MFI may choose alternative payment methods.)

If the MFI is partnering with an insurance company, it will need to demonstrate to the insurer that its claims verification procedures are adequate. It is not recommended that the insurer get involved directly in claims verification because this will undoubtedly create delays. It may be appropriate, however, for an insurance partner to get involved in internal auditing, especially if an MFI's own systems are weak.

In general, an essential control for preventing fraud is to actively **educate clients** of their rights and responsibilities, including:

- Demanding an official, pre-numbered receipt whenever money changes hands
- Only giving money to a designated MFI employee
- Knowing the appropriate channels to voice complaints and concerns

Well-publicized campaigns to this effect will not only educate clients, but also make employees think twice about taking advantage of their customers, which was certainly the case of a financial cooperative in the Philippines (see Box 4.3).



The Need for Client Education and Fraud Prevention in the Philippines

4.3 BOX

The Need for Client Education and Fraud Prevention in the Philippines

The three financial cooperatives studied all employed formal procedural guidelines and policies concerning the operation of the health insurance program to prevent fraud. Documents such as receipts and prescriptions must be submitted, processed, and approved by appropriate officers of the organisation before claims were made.

However, one coop General Manager revealed that in instances when they had discovered fraud, it was the cooperative officers and employees who were involved. The GM said that it was very unlikely that members would commit fraud because they were not aware of the policies and thus did not know potential loopholes.

Although the cooperative had been collecting a compulsory fee from its members since 1989, officers admitted that information about the health insurance program had not been disseminated. Only the officers, employees, and a few members knew of the program and were able to avail of the benefits.

The officers' withholding of information resulted in an inequitable situation. In effect, the majority of members who paid but were not aware of the health benefits subsidised the few individuals, mostly officers, who were aware of the scheme. Withholding this information from members was done for fear that funds could be depleted if all members made claims, which stemmed from the organisation's lack of confidence in the soundness of their package designs.

Adapted from Soriano et al (2002).

4.3

Fraud Detection

Fraud detection involves the three main elements: 1) operational audit, 2) client visits and 3) customer complaints.

After creating appropriate controls, an MFI needs to ensure that those controls are implemented. Microfinance managers throughout the organization must make sure that persons reporting to them follow institutional policies.

Internal auditors should conduct regular **operational audits** to confirm that policies, procedures and processes are being followed. When policies are not followed, it is usually for one of three reasons: 1) the employee was involved in some sort of fraudulent activity; 2) the employee did not know about the policy

or did not understand it; or 3) the employee believed that the policy was unreasonable. So while an operational audit might detect fraud, it will also identify staff training needs as well as certain policies that may need to be re-evaluated.

Client visits are a critical aspect of fraud detection to ensure that their records and the MFI's records are in agreement. Given the large volumes of customers, internal auditors use selective sampling methods so that visits are biased toward clients who are more vulnerable to fraud. For microinsurance, that involves visiting a high percentage of **Continuation** policyholders, clients who did not renew their **Continuation** policies, and those who recently stopped borrowing and elected not to purchase the **Continuation** policy. The internal auditor is also responsible for visiting a number of beneficiaries to ensure that claims were processed appropriately. In particular, they should probe claims that smell fishy, e.g., loan officers who seem to experience a higher than normal death rate, clients who seem to die when their loans are delinquent, and those die with large balances outstanding (see Box 4.4).

Because clients tend to be poor and uneducated, they are particularly susceptible to being victims of fraud. They often realize that someone is trying to take advantage of them, but they are not always empowered to do anything about it, and even if they want to do something, they may not know how. An important method for detecting fraud, and for improving customer service, is to establish a **complaint and suggestion system** that creates a communication channel through which clients can voice their opinions. If it is easy for clients to complain, and if their complaints can by-pass the local branch office, then they will be more likely to report questionable conduct on behalf of loan officers and other field staff. When branch managers, the operations manager or the internal auditor investigate this conduct, it often reveals fraudulent activities.

It is important to note that co-workers of the perpetrator, not auditors, detect most instances of fraud. Therefore, MFIs should create a work environment that provides incentives for employees to report suspected fraud to the appropriate level of management.

Statistical Fraud Detection

4.4 BOX

An MFI should identify the main areas of vulnerability to fraud and then collect quantifiable data in those areas. For example, loan officers may collude with clients to defraud the MFI by helping them make fraudulent claims. The MFI should therefore monitor the relative volume of claims for each loan officer.

A comparison between the average number of claims per loan officer and each individual loan officer's claims may identify some staff with above average mortality rates. The following spreadsheet is an example of such a process.

Loan Officer	Jan 03	Feb 03	Mar 03	Apr 03	May 03	Jun 03	Jul 03	Aug 03	Sep 03	Oct 03	Nov 03	Dec 03	Total Claims
Jose	1	2	1	2	0	2	1	2	0	2	1	2	16
David	3	4	4	2	3	5	1	7	4	2	5	2	42
Michael	1	0	2	1	0	1	1	1	0	2	1	1	11
Daniel	3	1	0	1	1	0	1	0	1	2	1	1	12
Cynthia	1	2	2	2	1	1	1	1	1	0	1	1	14

The average number of claims per loan officer = total claims / the number of loan officers = $95 / 5 = 19$.

David processed 42 claims during the year, more than double the average. The manager or internal auditor should investigate a sample of David's claims. In particular the MFI should look at the claims in August when David submitted seven claims, while other loan officers only submitted one to three claims a month. Indeed, David's high claims experience probably should have been identified by May or June.

KEY TERMS and CONCEPTS

- ✓ *Claims payment*
- ✓ *Claims processing*
- ✓ *Claims verification*
- ✓ *Client education*
- ✓ *Client visits*
- ✓ *Compensation system*
- ✓ *Complaint and suggestion system*
- ✓ *Cross-functional representation*
- ✓ *Detective controls*
- ✓ *Financial management*
- ✓ *Fraud detection*
- ✓ *Management information system*
- ✓ *Market research*
- ✓ *Outsourcing*
- ✓ *Operational audits*
- ✓ *Pilot test*
- ✓ *Premium collection*
- ✓ *Preventative controls*
- ✓ *Product champion*
- ✓ *R&D committee*
- ✓ *Resistance to change*
- ✓ *Screening*
- ✓ *Staff training*
- ✓ *Waiting periods*

4.2 Field Operations

The field activities of a microfinance institution that offers basic life insurance products are not substantially different than those of other MFIs. Because they are linked to delivery of loans, these five products do not require a different field structure. There is no need for a separate corps of insurance agents; the delivery of insurance can be integrated as an additional responsibility for loan officers.

This integration creates efficiency in insurance delivery, but needs to be handled delicately because staff could resent the additional work and not give sufficient attention to insurance sales and service, which are extremely important especially for voluntary products. This section first describes issues related to staff motivation and compensation, and then considers the insurance sales, screening and servicing responsibilities of loan officers.

Staff Motivation and Compensation

Most successful microfinance loan officers focus on two goals: 1) increasing the number of clients that they are serving and 2) maintaining excellent portfolio quality. It is not unusual for them to resent being asked to perform other tasks that distract them from these two objectives, especially if they earn financial

incentives for their lending accomplishments. With that in mind, management needs to convince loan officers that the additional responsibility of insurance products will enhance their ability to achieve their objectives—they need to see that the benefits are worth the extra effort.

If it is well designed and properly marketed, the insurance product should complement the loan officer's pursuit of a large, quality portfolio. Life insurance coverage could enhance customer loyalty, which contributes directly to the first goal since it is easier to increase outreach if clients regularly return for repeat loans—however the loyalty effect is much stronger with voluntary products. The **Continuation** policy in particular should make a strong contribution to loyalty since it allows loan officers to maintain relationships with clients who want to stop borrowing. MFIs that start with **Credit Life** coverage may need to explain to staff that the introduction of insurance is an evolutionary process that will ultimately allow loan officers to provide customers with greater value.

Regarding the second objective, portfolio quality, insurance allows loan officers to avoid blemishes by quickly dispatching with default due to death. Field staff should be very receptive to the insurance product if they were previously expected to collect the deceased's debts from the borrower group or the estate.

In terms of **compensation**, it is difficult to reward loan officers directly for providing *compulsory insurance* products. To highlight compulsory insurance as a separate product, and to emphasise its importance to the organisation, it is suggested that performance reviews include an assessment of a loan officer's efforts to sell and service the insurance product. Sell mandatory insurance? While this sounds contradictory, staff need to communicate the value of the product so that customers are happy about it (or at least not disgruntled by it—see Box 4.5). The loan officer's performance can be evaluated by observing sales techniques and interviewing a sample of clients about their reaction to the sales pitch. Service can be measured by the number of days from the occurrence of the event and the claim, and the number of days between the claim and the payment.

It is possible, and recommended, to reward field staff for their success in selling *voluntary insurance* products, but financial incentives for insurance sales need to be handled extremely delicately. It is often said that insurance is not bought, it is sold. With that in mind, one of the most effective ways to encourage staff to sell the voluntary product is to reward them for doing so. These incentives, however, need to avoid emphasising sales at the expense of service, and should not distract loan officers from their primary objectives of maintaining a large, quality portfolio.

The Importance of Selling a Mandatory Insurance Policy—The Case of FINCA Uganda

4.5 BOX

FINCA Uganda (FU) offers group personal accident (GPA) insurance as an agent of the American Insurance Group (AIG). After a few years of experience, the product was converted from voluntary to mandatory and the benefits were increased. While borrowers now have better coverage for less money, most clients no longer understand the product that they are buying.

Part of the reasoning behind initially starting as a voluntary product—even though a mandatory product would have made the insurer happier and reduced administrative costs for the MFI—is because FU management wanted to make sure that people were really “buying” the product. It forced staff to understand it and sell it, which helped clients to know what they were buying rather than simply being forced to accept one product (insurance) in their quest for another (credit).

After the switch to mandatory insurance, that information was not consistently conveyed. Participatory Rapid Appraisal (PRA) assessments conducted in 1999 and 2000 found that most clients were seriously confused about the insurance policy, as highlighted in an excerpt from one of the reports:

“The clients’ understanding of the product is far below the expected level. The groups have been in the scheme for over a year now—a reasonable enough period for one to know who pays the premium, the term of the policy, coverage and claims procedures. The responses clearly indicate that clients are walking on a quagmire of confusion.”

The limited transfer of knowledge is the result of a common, but regrettable, response by staff to a mandatory product. Clients become disgruntled when they do not understand what they are paying for, and this can lead to significant indirect costs such as dropouts and image problems.

By far the most difficult aspect of this product is getting the staff to understand the concept of insurance and having confidence that the product would actually benefit clients. According to AIG, FU’s credit director at the time of product inception opposed the product because she had no confidence in AIG and thought clients would be cheated. When the claims were paid and the **demonstration effect** was felt, she began to alter her opinion, but significant damage was already done to the confidence of the staff.

Adapted from McCord (2000b).



The introduction of insurance, or any new product for that matter, is an ongoing process. A careful piloting process can help elucidate the training and motivational implications of offering insurance. Loan officers who participate in the pilot test can provide valuable information about the problems and challenges they faced. When evaluating the pilot, consider the questions in Table 4.1.

Table 4.1 Determining the Training and Motivational Implications of Insurance

Question	Interpretation
Did loan officers perceive insurance as an additional burden or did they see it as a tool to achieve their lending objectives?	If they do not see insurance as a means to achieve their lending objectives, then the organisation will encounter implementation problems. Possible solutions may include additional training and/or changes to product design or procedures to reduce the burden. Rollout should not proceed until this issue is sorted out.
What questions did clients ask and which ones did the loan officer have difficulty answering?	Answers to this question highlight issues for additional staff training and client questions can be turned into a FAQ sheet for loan officers.
Do staff members think that the insurance product is in the best interests of the clients?	If the answer to this question is no, additional probing is necessary to understand why they have that perspective. If loan officers do not believe in the product, they are not going to sell it effectively.
Did they feel that they received sufficient training to offer insurance, and if not, what additional training would be beneficial?	While they may not be able to identify what additional training they need, if they do not feel that they were sufficiently prepared to offer insurance, then there is a gap in the training that needs to be filled before the product is rolled out.

Responsibilities of Loan Officers

To provide basic life insurance products, loan officers will have three new responsibilities: 1) selling the insurance product, 2) screening applicants, and 3) servicing the product, which involves verifying and processing the claim.

Sales

Although loan officers do not technically need to sell a mandatory insurance product, if the organisation intends to offer voluntary products eventually, it is important to cultivate a client-responsive sales culture from the beginning.

The sale of an insurance product is quite different from selling savings or loans. When developing a marketing strategy for insurance, consider two customer issues. First, what are the implications of the risk relationship between the institution and the client? And second, how does the education level and experiences of the target market influence their receptivity to insurance?

The Risk Relationship. With credit, the MFI puts its money at risk. Despite intentions to reach large volumes of people, microfinance institutions need to carefully select creditworthy applicants. Credit should not be oversold because if the supplier aggressively drives outreach, it will invariably reach an increasingly risky market. For savings, the risk roles are reversed. Depositors need to trust that the institution will be financially solvent and safeguard their assets. Savers can fairly easily test whether their money is accessible and secure by withdrawing their funds.

The risk relationship with insurance is more complex. As with credit, there is a screening element to ensure that the client pool does not include an over-representation of high-risk individuals. But like savings, there is a critical need for prospective policyholders to trust the institution. Unlike depositors, however, policyholders cannot easily test whether the insurer will fulfil its obligations—with life insurance, the policyholder has to die before the insurer has to respond.

The risk relationship between client and insurer has direct implications for selling insurance. To convince customers to trust the institution, sales techniques need to present the insurer as solid and viable, with an impeccable reputation, an organisation that keeps its word, and one that will be there for its clients in their time of need. If these characteristics do not describe the MFI—perhaps because it had a history of disbursement delays, fraud or processing errors—then it must significantly improve its reputation before it considers offering voluntary insurance products. This improvement could possibly be achieved through outstanding service with a mandatory product like **Credit Life**.

It is relatively easy to sell insurance to high-risk people. To build a representative risk pool, however, the MFI needs a **marketing strategy** that identifies and appeals to low-risk clients. To encourage low-risk persons to purchase life insurance, one strategy is to highlight occurrences of fatal

accidents. There is a good chance that prospective customers know someone of their generation who met an unfortunate and untimely demise, or the loan officer can speak from his own experience about the early and accidental death of a friend or household member. In these cases, the salesperson uses the power of imaging to help the customer consider what happened to the dependants of the deceased and how their situation could have been less dire if the deceased had life insurance.

If this approach seems distasteful, as if the loan officer is preying on the customers' vulnerabilities, it is important to recognise that the demand for insurance is softer than the demand for other financial services. People want safe places to save their money, and many are eager for the injection of capital that credit provides, but they are less passionate or enthusiastic about purchasing insurance. The softness is partly due to the fact that most people do not like to think about death and other risk events. To sell insurance, a salesperson has to harden the soft demand, which involves bringing the risk to life and making it real.

Previous Experience. The other factor that influences the choice and effectiveness of sales techniques is the customers' preconceptions of, and perhaps previous experience with, insurance (as shown in Box 2.1). It is not unusual that less educated persons do not understand what insurance is, or they have a false understanding—these conditions need to be rectified.

Part of the success of group microlending is that it adopted similar characteristics to informal savings and credit associations. Because clients already had an understanding of what was involved in group credit schemes, they were receptive to the idea. Although **informal insurance** is less common than Rotating Credit and Savings Associations (ROSCAs), it may be possible to find examples of informal risk pooling mechanisms, such as those described in Box 4.6 and 4.7, which can be used to illustrate how formal insurance works.

Informal Funeral Funds in Zambia

4.6 BOX

Very few respondents had experience with formal insurance. This research, however, identified several examples of informal insurance. Funeral funds can be found in many marketplaces and sometimes among church congregations. Weekly premiums, usually US\$0.13 to \$0.26 were based on what members could afford rather than an actuarial analysis. The premium income was usually held by the fund's treasurer, or split between the treasurer and the vice-treasurer. Although this arrangement raises security and fraud concerns, it makes it possible for money to be immediately available to a household in need. Coverage was usually extended to all household members, or anyone for whom the funeral would be held at the member's house. The membership of funeral funds ranged from 20 to 50 persons; familiarity among members helps to control adverse selection. The typical benefit amount of US\$13—sometimes provided in the form of firewood and food—is insufficient to meet all funeral costs, but it is a start. Some members indicated that it was common for fellow fund members to make extra contributions to assist one who has been struck by a funeral.

Any life insurance product for the low-income market would be wise to mimic the strengths of informal schemes, such as expedient claims processing and the use of groups to control adverse selection and deter premium lapses. A formal insurer should then be able to position itself well vis-à-vis funeral funds by providing greater value. With a larger risk pool and greater economies of scale, for the same premium amount a formal insurer might be able to provide a benefit that is roughly 5 to 10 times larger than the payouts in most informal schemes, especially if it could rely on existing distribution channels, such as market associations, church groups and MFIs, to minimise transaction costs.

Adapted from Manje and Churchill (2002).

4.6

Informal Funeral Funds in Zambia



The Damayan Schemes in the Philippines

4.7
BOX

The practice of microinsurance in the Philippines is not new. Risk sharing through solidarity schemes has been part of community life for centuries. In the subsistence economy of the past, risk-sharing and resource-pooling customs were developed so that individuals and groups could cope with the occasional crises that befell them.

One of these risk-sharing customs that remains prevalent is the practice of *damayan* where relatives and friends in the community voluntarily contribute cash to the dependents of an individual who passed away. The *damayan* has become the basis of risk-pooling schemes for life insurance and is common among cooperatives and associations. In this self-insurance scheme, group members agree to shift the risk from one individual to the group, which manages and owns the risks collectively.

Many MFIs trace their insurance schemes to the *damayan* that their members instinctively practiced as part of the local customs. After some time, their *damayan* was institutionalised and labelled as “life insurance” by the MFIs, along with the installation of some policies to make the custom binding and compulsory.

These *damayan*-based schemes are based on solidarity and sharing. Relationships within the *damayan* group are personal. “Contributions,” rather than premiums, are collected and are given as gifts, rather than claims, from the community to the bereaved. The implicit threat of ostracism serves to enforce participation and significantly reduce the problems of moral hazard and adverse selection.

Indigenous insurance is usually small scale, covering a few dozen to a few thousand members. Such schemes work well for lower income groups because they cannot afford formal insurance policies. Informal insurance schemes are largely unregulated, which allows for site- and client -specific customisation at the local level.

Adapted from Soriano et al (2002).

4.7

The Damayan Schemes in the Philippines

It is also important to determine the customer's previous experience with insurance. In some environments, fly-by-night providers or **insurance scams** have tainted the insurance industry. When customers have purchased insurance from legitimate providers, there is still a good chance that their experience was not altogether positive. **Common complaints** include aggressive sales tactics, long delays between the claim and its payment, and rejected claims on fine-print technicalities. To sell insurance, loan officers must ascertain the customer's prejudices and preconceptions, and then be prepared to clearly distinguish the MFI's services and those of other insurers.

Another approach is to determine how the customer would normally cope with the loss of a loved one, or how their household members would cope if they died. Sales techniques can then help customers to understand how the insurance product could perhaps offer better coverage than that provided by informal coping mechanisms.

One of the most effective sales techniques also relies on experiences, but those of others. **Testimonial marketing** uses case studies, quotes and endorsements from actual persons who have benefited from the insurance products to tell their stories. This approach highlights the experiences of persons who are reasonably representative of the target market (or of low-risk members of the target population since that should be marketing emphasis), so that prospective customers can relate to them and their situation. This marketing approach cannot work for a completely new product, since there is not any experience yet to speak about, but testimonials can be collected during the pilot phase so they are ready for rollout.

To standardise the marketing message throughout the organisation, and to communicate effectively with uneducated and illiterate clients, some organisations develop **illustrated presentations** that are produced on laminated flipchart sheets and available in all offices. Other organisations use songs as a means of communicating and reinforcing key messages.



Table 4.2 Techniques for Selling Microinsurance

Existing or Previous Customers	Listen to customers to find out what they consider the important benefits or features	<input type="checkbox"/>
	Collect case studies for testimonial marketing	<input type="checkbox"/>
	Learn why customer choose not to purchase the voluntary product or did not renew their policy	<input type="checkbox"/>
Prospective Customers	Determine the customer's understanding of insurance and educate where necessary	<input type="checkbox"/>
	Determine previous experience and prejudices, and where negative, clearly distinguish from the MFI's services	<input type="checkbox"/>
	Identify existing coping strategies for the insured risk and compare their effectiveness to insurance	<input type="checkbox"/>
	Harden soft demand (particularly of low-risk individuals) through the power of imaging by delicately reminding them of their vulnerability	<input type="checkbox"/>
The Product	Highlight the product features that existing customers find attractive (i.e., low cost, simple payment mechanism, responsive claims procedures, etc.)	<input type="checkbox"/>
The Institution	Project the MFI/insurer as solid and viable	<input type="checkbox"/>
	Convey that the organisation has an impeccable reputation, it keeps its word and it cares about its customers	<input type="checkbox"/>
The Salesperson	Know the product and the institution—speak with authority, speak with pride	<input type="checkbox"/>
	Personalise the message by speaking from experience	<input type="checkbox"/>
	Show extreme respect for the customers	<input type="checkbox"/>
	Be sincere, believable, trustworthy, caring and empathetic	<input type="checkbox"/>

The Salesperson. The loan officer is the key to effective insurance sales. As the spokesperson for the institution, the loan officer should personify key institutional characteristics: dependable, caring and trustworthy. Since most loan officers do not really think of themselves as salespeople, the addition of voluntary insurance will require a change in culture and approach that may only be achieved through intensive training, modelling and shaping. An MFI would be wise to hire a consultant with expertise in sales to work with staff in the field to polish their presentation content and delivery methods—this is what FINCA

Uganda did (when their GPA insurance was still voluntary) and the organisation experienced a dramatic improvement, not just with insurance sales, but FU also saw a large increase in borrowers as well.

In some MFIs, a skewed **power relationship** between loan officer and client may represent an obstacle to insurance sales. Some loan officers assume an authoritative relationship vis-à-vis their clients—they have something (loans) that the clients want, so staff may come across, intentionally or unintentionally, as superior. This power relationship is exacerbated because loan officers typically have a greater income and education than their customers. This imbalanced relationship is not conducive to insurance sales. Loan officers need to learn how to avoid patronising and condescending behaviour; they need to treat prospective clients as peers or even respected elders.

Screening

Except for the **Continuation** policies, the insurance products covered in this manual are issued concurrently with a loan. Consequently, screening for credit risk takes priority over insurance screening. There are two characteristics, however, that should be added to the loan eligibility criteria, or more strictly enforced, because of the insurance coverage: age and health.

Many MFIs have a maximum **age** limit and anyone above that age is not supposed to receive a loan. In practice, however, this limit is not always applied. Credit officers complain that when a borrower started in the program, she was below the limit and so she should not be kicked out when she reaches 65; or that older clients are the best credit risks because they are more trustworthy; or that they will not be able to reach their productivity targets if they cannot serve this large segment of the market. These arguments need to be balanced with the conclusions from the actuarial analysis. When offering insurance, lending policies that may have been flexible before need to be tightened up to conform to the underwriting criteria.

Without insurance, loan officers find that few ill persons apply for a loan—the risk of not being able to repay the loan is too great. The availability of insurance, even just **Credit Life**, will make some ill persons interested in borrowing because their debts will be written off if they die. So while it is reasonable to assume that credit screening is sufficient for insurance screening purposes, in reality this adverse selection risk means that loan officers need to heighten their sensitivity to **health** screening. This may mean requiring loan applicants to complete a health questionnaire or signing a statement that they are in good health. It also means that loan officers should be trained to identify possible health risks through casual observation.



Service

In the insurance business, sales without service will quickly undermine sales. It is critical that loan officers recognise the direct relationship that their reputation for service has on their ability to make sales. Where low-income people are familiar with insurance, they often have a negative perception because of slow claims processing and fine-print rejections. The MFI has to go out of its way to prove that it is a different breed of insurer. For MFIs to distinguish themselves from insurance scams and the criticisms of other insurance companies, they should establish (and live up to) a firm commitment to turn around claims within a short period of time, usually less than a week.¹⁸

Insurance service has three aspects: claims verification, approving (or rejecting) claims, and processing claims.

Claims Verification. For life insurance, beneficiaries are usually required to submit a death certificate as evidence that the insured event occurred. For disability claims the beneficiary will need to submit a doctors note as proof. If at all possible, it is wise to supplement primary documentation by a second party verification, such as a letter from the group leader or, with individual lending, a letter from a religious leader or political official.

The documentation requirements need to balance two objectives: a) to provide proof that the insured event occurred from two independent parties, b) without causing undue hardship for beneficiaries during a difficult time. If, for example, the process of getting a death certificate involves an hour bus ride to a provincial capital and a large fee to the issuing body, then the MFI should consider alternative documentation that is less expensive and easier to get, but not easy to falsify.

The loan officer is responsible for determining if the claims documentation is valid. In some cases this does not require any additional work. If the loan officer lives in the community or is close to the client, she will probably already know that the claim is legitimate. In other cases, the loan officer will need to pay a visit to the household to confirm that there is indeed mourning activities underway. This visit should not be presented as an effort to verify the claim, but as a social visit to pay one's respects. In fact, a visit to the household or attendance at the funeral could be standard procedure, even if the loan officer indeed knows that the client died, as a means of demonstrating the caring nature of the institution to the household and community. Besides, it might be a good marketing

¹⁸ To provide truly outstanding service, an MFI should try to exceed expectations. Consider publicising a seven-day turn around on claims while setting internal targets of three or four days.

opportunity—perhaps a survivor will be interested in taking out a loan to continue the household business.

With the **Additional Benefit**, **Additional Lives**, **Credit Disability** and **Continuation** products, there is a good chance that beneficiaries will bring the death to the attention of the loan officer and be compliant about submitting the necessary documentation (assuming it is not too burdensome) because they have something to gain. With **Credit Life**, however, the incentives for providing evidence of the insured event are not as strong since there is no payment to the beneficiaries. MFIs need to look at how to resolve this possible dilemma without exposing themselves to staff fraud—i.e., verification should not consist of documentation generated by loan officers since they have an incentive to get a large, troublesome loan off of their books.

Approving (or Rejecting) Claims. Especially during the first few years of operations when the MFI-insurer is building its reputation, it needs to minimise or even eliminate the number of rejected claims. This reputation is achieved by setting thorough, strict and explicit criteria for the approval or rejection of claims, communicating these criteria very well to clients and then sticking to them.

Because the target market may already harbour suspicions about insurers, if word gets out that the MFI (or its partner) is rejecting claims unfairly, it will cause irreparable damage to the organisation's reputation. Bad news travels faster and further than good news. Community members are much more likely to talk about the one claim that the MFI rejected, and the poor family that suffered, than the 25 claims payments that it processed in less than a week. Given the softness of the demand, one unfair claim rejection may also undermine any chances that voluntary insurance will succeed in that community. The **public relations** challenges and opportunities are summarised in Box 4.8.

Payment of Claims. The payment process differs between the outstanding balance policies and the other products. With **Credit Life** and **Credit Disability**, there is no actual payment; the benefit is essentially an accounting transaction to write off the outstanding balance. In the case of **Credit Life**, it is recommended that the MFI deliver an official letter to the deceased's household to communicate the condolences of the MFI and its employees, and to inform survivors that they are not liable for the debts of the deceased because it was covered by an insurance policy. This letter would achieve a variety of public relations, internal control and relationship management objectives.



Public Relations Challenges and Opportunities of Microinsurance

4.8

BOX

Public Relations Challenges and Opportunities of Microinsurance

This manual repeatedly stresses the importance generating positive public relations value while minimizing bad publicity. This emphasis is critical because microinsurance is targeted at a clientele that is lukewarm about insurance at best. Positive PR is needed to solidify the soft demand, while any negative publicity will squander the limited demand that does exist.

Microinsurers are particularly vulnerable to negative publicity in the following areas:

- **Claims rejections:** Rejected claims pose the single greatest threat to a microinsurer since word will circulate quickly that the organisation is breaking its promise. The four primary reasons why an insurer might reject claims are: a) exclusions, b) confusion regarding the insurable event, c) the event occurring outside the term (perhaps due to lapses or non-renewals), and d) client fraud. Product design should strive to minimise the likelihood that the first three causes could occur. In addition, a significant investment in client education will hopefully avoid misunderstandings. If a claim is rejected due to client fraud, the insurer should have indisputable evidence that it can use to counteract any public complaints by the client or beneficiary.
- **Late claims payments:** Negative publicity might also emerge due to late claims payments, so the microinsurer should have systems that can expedite the payment of valid claims.
- **Product design:** If the product is too complicated or the pricing is not transparent, the microinsurer will reinforce the public's negative preconceptions. Simplicity and transparency should guide product design.
- **Compulsory cover:** Mandatory insurance creates another PR vulnerability, especially if the pricing is not transparent. Microinsurers should monitor dissatisfaction levels and use exit interviews to determine the contribution that compulsory cover makes to client desertion.

Alternatively, microinsurers should strive to leverage public relations opportunities, for example:

4.8 ▶

■ **Claims payment:** When a microinsurer makes claim payments, it should generate some degree of informal publicity. The objective is to create a demonstration effect, to show doubters that the insurer is true to its word and really does make claims payments. The objective is to turn the insurance sceptics into converts.

■ **Claims verification:** An immediate response to a claims request, in the form of a verification visit, is a good first step. It shows that the insurer cares equally about service as it does sales—which would refute a widely held public opinion.

With **Additional Benefit**, **Additional Lives** and the **Continuation** policies, efforts need to be made to minimise the chances that the payment ends up in the wrong hands. In these cases, it might be a good idea for branch managers to hand deliver a condolence letter and the payment cheque to the beneficiaries, for both public relations and internal control purposes. A payment directly into the beneficiary's savings account would reduce transaction costs and provide a stronger preventative control, but would not have the public relations value—perhaps this could be the ultimate payment method once the MFI no longer needs to demonstrate to the community that it pays claims and it pays them fast.

KEY TERMS and CONCEPTS



- | | |
|------------------------------------|--|
| ✓ <i>After-sales service</i> | ✓ <i>Marketing strategy</i> |
| ✓ <i>Claims rejection</i> | ✓ <i>Power relationship</i> |
| ✓ <i>Claims verification</i> | ✓ <i>Public relations</i> |
| ✓ <i>Common complaints</i> | ✓ <i>Risk relationship</i> |
| ✓ <i>Demonstration effect</i> | ✓ <i>Screening for age and health</i> |
| ✓ <i>FAQ sheets</i> | ✓ <i>“Selling” mandatory insurance</i> |
| ✓ <i>Illustrated presentations</i> | ✓ <i>Staff incentives</i> |
| ✓ <i>Informal insurance</i> | ✓ <i>Staff motivation</i> |
| ✓ <i>Insurance scams</i> | ✓ <i>Testimonial marketing</i> |



Further Reading on Insurance Operations

The field of microinsurance for MFIs is so new that there is little information of best practice for front and back office aside from this manual. There are however a great number of resources on operational issues for insurance in general. It is also useful to keep up with general texts on issues like sales, marketing and human resource management.

For information on internal control see:

- **Campion, A. 2000.** “Improving internal control: a practical guide for microfinance institutions.” Washington DC: MicroFinance Network.

Appendix 4

Responding to Death Risk—CETZAM's Experience with Client Education and Marketing

The following case study appears as an annex in the paper by Lemmy Manje and Craig Churchill, "The Demand for Risk-Managing Financial Services in Low-income Countries: Evidence from Zambia," published in 2002 by the ILO's Social Finance Programme. It can be downloaded from www.ilo.org/socialfinance.

CETZAM is one of the biggest microfinance institutions in Zambia. In 1999, CETZAM experienced a dropout rate of 25 percent, which is similar to other programs in the region but higher than its 15 percent target. Probing through the exit surveys indicated that most clients found it difficult to meet their loan obligations due to illness, a funeral in the family, or business problems.

Funerals were identified as the biggest problem, so CETZAM carried out an in-depth survey to verify this and determine how CETZAM could help. The results indicated that most clients wanted assistance with funeral expenses.

CETZAM decided to introduce a Funeral Benefits Insurance Scheme managed by NICO Insurance Company, a local insurer. The scheme is called NTULA, which means, "to lift off my burden." NTULA was introduced at the beginning of October 2000 and made mandatory for all CETZAM clients. The initial response was positive as clients felt that the insurance scheme would solve their pressing problem.

According to CETZAM's Finance Manager, "NTULA is not only beneficial to our clients but also to CETZAM since it protects the loan portfolio and reduces the client exit rate."

As at July 2001, 1,740 clients were registered on the scheme, and 159 clients had benefited through claims. CETZAM acknowledges that there was a misunderstanding during the initial days of the scheme regarding the insured period. Some clients had problems understanding that insurance is specific to the policy term; if the event occurs outside this period there are no benefits. Some clients felt that it was unfair that they would not benefit if the event occurred outside the insured period. This experience highlights the importance of client education when introducing an insurance product to low-income households.

Initial experiences require some adjustments to the scheme because it does not specify who constitutes a dependent. Clients took advantage of this



arrangement resulting in a lot of early claims. CETZAM and NICO Insurance have acknowledged the need to define who is a dependent, but this raises a complex debate given the structure of Zambian households.

Though CETZAM's Funeral Benefits Insurance scheme is still in its infancy, the pricing seem to be working well for the clients. Monthly premium of US\$1.20 covering 6 people seem to be within the means of the clients. CETZAM's benefit payout of ZMK 500,000 (US\$132) corresponds well with average cost of funerals.

CETZAM's "NTULA" Funeral Benefits Insurance Scheme

SCOPE OF COVER Death of a client and up to five dependents.

PURPOSE To lessen the financial burden of members for costs incurred during family bereavement, i.e., coffin, food, transport, etc.

BENEFITS ZMK 500,000 (US\$132) payable on death of a CETZAM member and/or any registered dependent.

ZMK 250,000 (US\$66 for a registered dependent who is under 14 years.

PREMIUM ZMK4,500 (US\$1.20) per month payable through CETZAM loan repayment process.

INSURER NICO Insurance Zambia Limited

Upon occurrence of death of a member or registered dependent, the following should be followed:

**CLAIMS
PROCEDURE**

1. The member (if the registered dependent has died) completes an appropriate a form obtainable from the nearest CETZAM/SIS Insurance agency office. (In the event of a member's death, the spouse or one of the registered dependents completes the form.)
2. The completed form and a death certificate from an authentic medical centre are lodged in at the CETZAM/SIS Insurance Agency Office. (Where death occurs out of city limits, a letter of confirmation of death from the local authority—e.g., District Administrator, Local Chief—should be obtained and handed to CETZAM/SIS).
3. The claim form and death certificate should be lodged with the CETZAM/SIS office within 14 days of occurrence of death.
4. Claim to be authenticated by authorised CETZAM/SIS official.
5. Claim to be paid within **two working days**.

ADVANTAGES OF
THE SCHEME

1. No medicals are required to qualify for the benefits.
2. Quick claim settlement.
3. Claim paid even when a member is “loan resting”.
4. Protects members from borrowing to pay for funeral expenses.
5. Protects members’ savings from being used up for funeral expenses.

OUTSOURCING RISK AND RESPONSIBILITY

The purpose of this chapter is to:

- Articulate the strengths and challenges of six types of outsourcing relationship
- Identify the critical elements in identifying an insurance partner
- Recognize the roles and responsibilities of the partners in outsourcing various insurance products

Many MFIs are managed by a team of professionals who are experts in the provision of credit, and perhaps savings services as well. These organisations typically recognise what they do best and they are aware of their limitations. Certainly low-income persons need more than credit and savings. They face a whole range of challenges that cannot be solved by a loan or a savings account. Yet pragmatic MFIs accept that they cannot address all, or even most, of their clients' needs, at least not on their own.

Outsourcing—a formal relationship by which some business functions are performed by an external company or consultant—allows an MFI to focus on its core business while increasing the breadth of services that it provides to its clients. For example, some MFIs collaborate with training centres so they can indirectly offer business development services to their clients.

Outsourcing also helps to keep an MFI's overhead structure lean by drawing on external technical expertise when and if it is needed. Many MFIs outsource MIS development to software companies; others outsource market research to universities or research institutes.

For both of these reasons, outsourcing is an attractive solution in the provision of microinsurance. A partnership or outsourcing relationship with an insurance company can enable an MFI to offer clients a broader menu of services without layering on additional overhead costs. With insurance, there can also be a third benefit; MFIs can also reduce their level of risk by outsourcing all (or some) of it to an insurer or reinsurer.

Outsourcing has the potential to create a win-win-win situation for MFIs, their clients and insurers:

- For **MFIs**, many of the insurance responsibilities identified in Table 2.1—including pricing, product design and compliance with regulatory

authorities—can be outsourced to reduce the burden on the MFI. An outsourcing relationship can also accelerate the product development and rollout process.

- For **clients**, research has shown that microinsurance products designed by insurance professionals generally provide greater value at a lower cost than products developed by MFIs on their own (Brown and Churchill 2000).
- For an **insurance company**, a relationship with an MFI opens the door to a new market that it could not reach on its own. The MFI connection makes microinsurance a profitable niche market for an insurer, and it can also generate positive public relations value.

Despite these advantages, outsourcing has some potential limitations. An outsourcing arrangement requires an MFI to depend on another company or individual, over which it may have limited control. If the relationship does not work well, an MFI may find itself making promises to customers, only to be let down by an insurance partner—this was SEWA’s experience, as highlighted in the case study in Appendix 2. Second, outsourcing is not free; an outsourcing relationship involves a transfer of some potential income and expenses from the MFI to others. Third, in some environments MFIs have difficulty finding appropriate partners or convincing insurers to partner with them (although a little digging and a persuasive sales pitch can often reduce this potential obstacle).

In most circumstances, for most insurance products, the advantages of outsourcing far outweigh the disadvantages.

MFI-insurance outsourcing can be structured in a variety of ways. This chapter reviews the six types of outsourcing relationships:

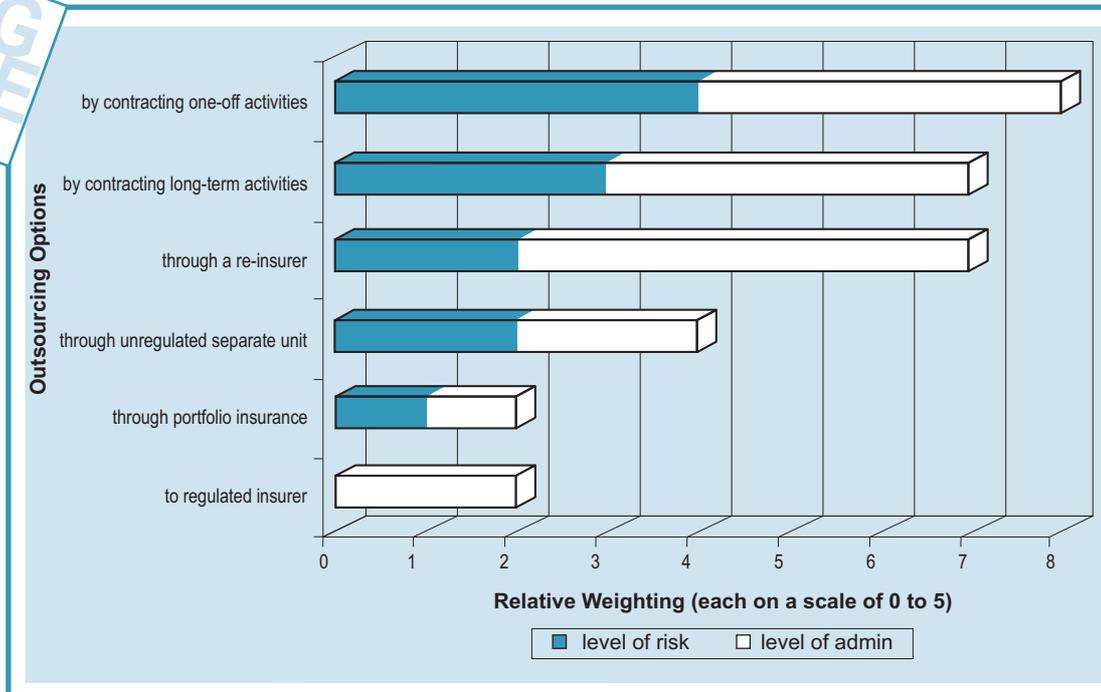
1. Outsourcing the business to an insurer
2. Outsourcing risk through portfolio insurance
3. Outsourcing risk through a reinsurer
4. Outsourcing by insuring through a separate business unit
5. Outsourcing specific long-term activities of the insurance process
6. Outsourcing one-off activities to consultants

Figure 5.1 compares the different levels of risk and administrative burden for each outsourcing option. These are relative indications based on a scale of zero to five, with zero being no risk or administrative burden.

The discussion below of these six options flows from least risky (outsourcing the business to an insurer) to most risky (contracting one-off pieces of the business to consultants).

Relative Risk and Administration for Insurance Outsourcing Options

FIGURE
5.1



5.1 Outsourcing the Business to an Insurer

The least risky approach to providing microinsurance is for an MFI to outsource the whole business to a regulated insurer. This relationship, depicted in Figure 5.2, is commonly known as the **partner-agent model**.

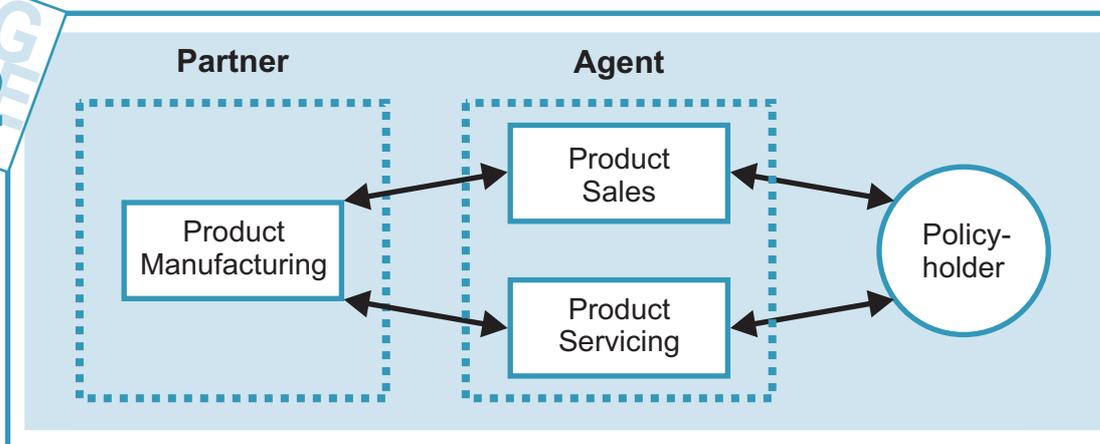
The MFI acts as an insurance agent, **selling policies** to MFI clients on behalf of the insurer in exchange for a commission; the MFI is also responsible for **product servicing**, which involves verifying claims and submitting claims requests.

The insurance company ‘manufactures’ the insurance product, which involves determining the product’s features, such as the insured event, the waiting period, exclusions, the term and the benefit. The insurer provides the actuarial, financial and claims-processing expertise, and absorbs all the insurance risk.



FIGURE
5.2

The Partner-agent Model



Although the insurance company is responsible for **product manufacturing**, it should work closely with the agent (the MFI) to develop appropriate coverage because the agent knows the market best. Based on discussions between the MFI and the insurer, plus any market research information that the MFI has available, the insurer will design an appropriate product.

Because the insurer assumes all the risk, it is also responsible for maintaining the reserves, paying the claims and complying with legal requirements. This insurer-agent relationship represents a common method of insurance operation and has proven effective with the entire range of insurance products including: life, health, disability, and property.

Financial Flows

Two examples of outsourcing the insurance business to a regulated insurer are described in Box 5.1. Using these examples, this section describes the flow of funds (see Figure 5.3) between client, agent and insurer for premium payments and claims.

Examples of the Partner-agent Model

5.1 BOX

Examples of the Partner-agent Model

AIG in Uganda has developed a Group Personal Accident policy for MFI clients. This product was initially offered to low-income persons through FINCA Uganda. FINCA manages the direct client relationships by selling and servicing the compulsory product, while the insurer (AIG) manages all the back office activities. The policy covers credit life and disability, plus an additional benefit for the death of the client, her husband and up to four children if the death is by accident. AIG currently provides a similar policy through other MFIs in Uganda and Tanzania. This example is described in more detail in Appendix 5.

SEWA works with two insurance companies to provide voluntary life and accident coverage for its clients. This scheme is not tied to its lending operations. SEWA manages the customer interactions, while Life Insurance Company and New India Assurance manage claims and carry the risk. SEWA works with two insurers to obtain more comprehensive coverage for its clients, where one insurer covers death by accident and the other covers death by any cause.

Clients' Premium Payments

The first step is for premiums to get from the client to the agent. The premium payment process can be one of the greatest transaction costs for microinsurers so mechanisms need to be designed to minimise these costs. To overcome this obstacle, both organisations link the premium payment with another financial service.

Instead of requiring small, regular premium payments, SEWA allows clients to save money that can be used toward paying an annual premium. This arrangement lowers transaction costs since there is only one premium payment per year while accommodating the irregular cash flows of low-income households. One possible concern about this approach is the potential liquidity management problem that could occur if many clients withdraw significant savings all at the same time. Even more innovative, SEWA also offers an insurance-savings account whereby interest on accounts with a sufficient minimum balance is used to pay the premiums, which virtually eliminates premium payment transaction costs.

FINCA Uganda buries the premium in another fee, the interest rate on loans. In this arrangement, while clients may know what interest rate they are paying, they are unaware how much of that rate goes to pay for the insurance premium. Although this is perhaps the simplest payment method, it lacks transparency both for clients and the MFI.

As discussed in Chapter 3, for the four loan-linked products presented in this manual, it is recommended that the MFI deduct the premium from the loan amount, or issue a slightly larger loan that includes the premium amount and then deduct it. For the **Continuation** product, an automatic deduction from the savings account is recommended.

Agents' Premium Payments

The premiums then need to get to the insurer. FINCA makes monthly payments to AIG for a group policy based on the volume of new loan contracts in that period. SEWA makes an annual premium payment for individual policies. Typically an annual premium payment will be less expensive than the sum of the monthly payments, but it may not suit the MFI's cash flow.

Claims

Regarding claims, requests are initially prepared by beneficiaries or group members and submitted to the MFI through the loan officer. After verifying the claim, the loan officer sends the request to the MFI's head office, and then it is forwarded to the insurer. The insurer pays the claim to the MFI, which then (finally) pays the beneficiary (although this last step is not necessary with **Credit Life** and **Credit Disability** policies).

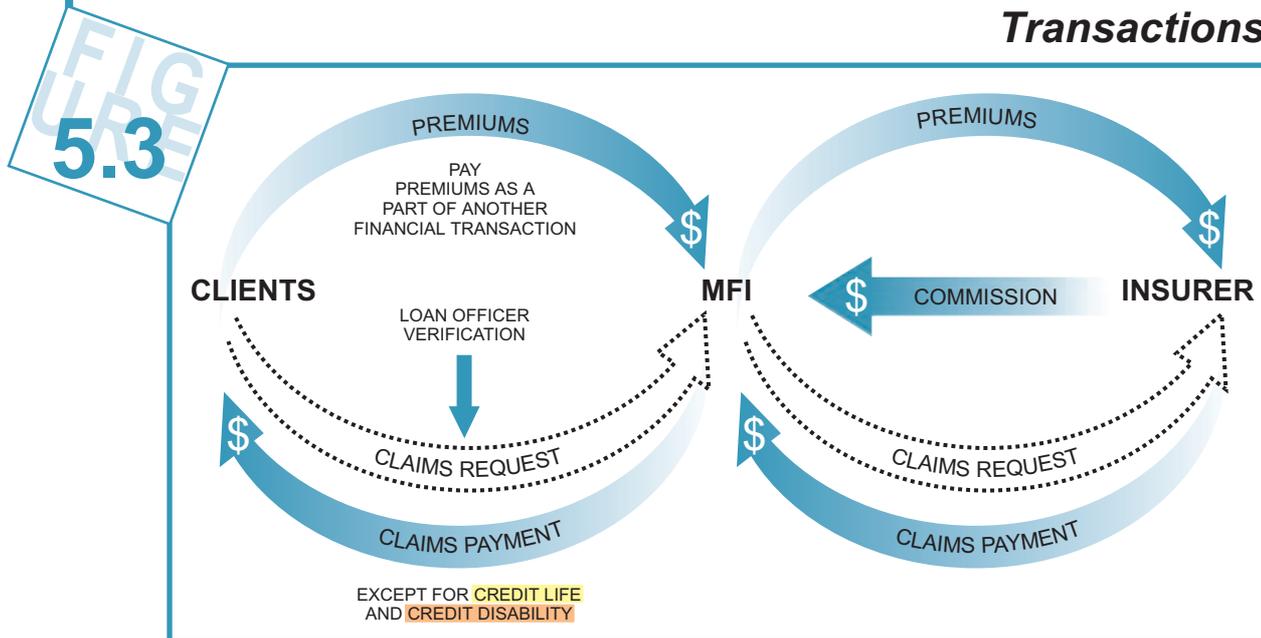
The claims process is cumbersome and could cause unnecessary delays. MFIs are encouraged to experiment with streamlined claims processing systems as long as they do not increase the organisation's vulnerability to fraud.

One possibility is for the MFI to maintain a small claims reserve (perhaps capitalised by the insurer) out of which it pays beneficiaries directly, and then reconciles with the insurer at the end of each month. This approach would eliminate claims delays instigated by the insurance partner. It would also reduce transaction costs for the insurance company, which would only have to make one claims payment a month. This arrangement would only work if the insurer and MFI fully agree on claims documentation and verification procedures—or if the MFI is willing to risk being out of pocket for any claims that the insurer subsequently rejects.

Commissions

The only other financial flow in the partner-agent model is the payment of **commissions**. The commission, paid either monthly or annually, could be deducted from the premium payments before they are forwarded to the insurer, or it could be paid back to the MFI; the former is more efficient.

Follow the Money: Partner-agent Financial Transactions



Identifying a Partner

The most critical decision for this outsourcing model is the selection of the insurance partner. Before meeting with possible insurance providers, an MFI should consider the list of questions in Table 5.1.¹⁹ Although not hard and fast requirements for selection, these questions provide talking points with which to begin a conversation with potential partners.

Addressing these questions will assist the MFI to select an insurer that can serve the needs of its clients. It may be helpful to use the appropriate questions from this Table to construct a **tender offer** that can be distributed to insurers, while the MFI researches reputations and regulatory issues.

¹⁹ Adapted from Brown, Green and Lindquist, 2000.



Table 5.1 Due Diligence Checklist for Identifying an Insurance Partner

Questions	What an MFI Should Look For
What is the reputation of the insurance provider?	It should be a strong institution that pays claims on time. Check with policyholders to see if they have had a positive experience.
How is the insurer currently financed?	The insurer should be financed from its earnings, and it should have a stable, conservative asset portfolio.
What is the claims experience of the insurer and its history of claims payouts?	They should pay most claims within a month and be willing to guarantee a fast turnaround (within two weeks guaranteed with an effort to pay within one week) on claims from MFI clients. The MFI should track this once a relationship is finalised.
How interested is the insurer in serving the low-income market?	They should not only express interest but also have examples of current work with this market or at least examples of efforts to work with this market.
Will the insurer adjust its products to suit the preferences of the poor?	They will likely need to reduce the coverage, reduce the price proportionately, and even adjust some procedures to facilitate the transactions between the MFI and the insurer.
Is the insurer willing to make a medium- or long-term commitment to the MFI?	This type of relationship will take time to mature. If the insurer is not willing to make a commitment for at least three years, it is not worth the MFI entering the arrangement. Note: the insurer is not tied to the original terms of the insurance for that period, just to continue to work with the MFI and its clients.
Is the insurer willing to pay a commission to the MFI for performing the agent role?	On short-term group life business, insurers typically pay an agent five to twenty percent of the premium. ²⁰ The MFI should get a substantial portion of that amount.
Are there issues related to regulatory compliance by the insurer?	An MFI should review the insurer's annual report and discuss its regulatory compliance with the insurance commission. Some insurance companies employ an ombudsman to interact with the public. If one is available, the MFI should discuss with her issues related to regulatory compliance and common customer complaints.
Will the insurer give the MFI responsibility for verifying claims?	It is not recommended for the insurer to verify claims. The two partners should have a written understanding regarding what proof the insurer requires. The agreed documentation should be accessible to the poor, yet conclusive.
Can the insurer minimise the number of exclusions without jeopardising the sustainability of the plan?	Generally, MFIs have difficulty informing clients about complex products. Insurance will be the same. Not only will MFIs have to explain the concept of insurance (risk pooling), but they will also have to help clients understand the product. The simpler the product, the easier it will be to sell and administer the product.

²⁰ With Life Insurance business that is intended to last for many years, an insurer will often pay an agent a large commission upfront. An MFI must recognise that if the insured client does not renew after the first year, the insurer will retrieve or **claw back** the surplus commission paid to the agent in the first year. Thus, it is much easier for an MFI to take commission on a consistent percentage at each renewal.

Negotiating with a Potential Partner

As in other business relationships, both parties will be negotiating for their own benefits. In negotiations between an insurer and an MFI, the insurer usually has the upper hand for the same reason that the MFI seeks out the insurer in the first place—the MFI does not know how to manage an insurance company.

Since the MFI's negotiators need to protect the interests of the clients *and* the institution, it is important that they represent their constituents adequately. To balance the apparent advantage of the insurance company, the MFI's representatives should:

- Be familiar with key aspects of the insurance business, and
- Come armed with sufficient details about their own operations.

Regarding basic insurance information, negotiators should be particularly familiar with the fundamentals described in Chapter 1 and the product features summarised in Section 3.2.

In addition, negotiators must have sufficient information about their own portfolio including:

- Historical growth data and realistic projections for the future
- For life insurance, actual numbers of deceased clients by year for at least the past three years (preferably including details on age and gender)²¹
- A basic idea of what insurance product and product features the MFI wants to offer based on market research.

A final point on negotiations: MFIs are not at the mercy of insurance companies. MFIs have a strong bargaining position because they hold the key to a whole new market for the insurer. Despite the small policy size, insurers should be drooling over the possibility of serving thousands of new customers without any acquisition costs—for many insurance products, acquisition costs represent the majority of the administrative expenses. The larger the MFI, the stronger the position. Ten thousand new clients will resonate much louder in the negotiation room than one thousand.

“Know your enemy and know yourself; in a hundred battles, you will never be defeated.”
Sun Tzu

²¹ Presumably, data on the occurrence of health and disability risks or property losses will be hard to come by.



Roles within the Partnerships

During later stages of the negotiation process, the MFI and the insurer will determine who does what. The list of insurance activities in Table 5.2 includes suggested roles for each party, noted with either a dash (-) signifying no role, or plus signs (+) signifying the level of effort. For each relationship, and for each product, the combination of roles is likely to be somewhat different—this example is for the **Additional Lives** product.

Some tasks are clearly the responsibility of one party but also require involvement from the other. Pricing, for example, is the domain of the insurer, but the MFI should help the insurer to better understand the market so that the insurer can develop an appropriate product/price mix.

During the testing and initial phases, it is important to have frequent status report meetings to make sure that systems are working for both parties. These need not be formal, and should always be short and focused on the interrelated processes. Meetings might address the following issues:

- **Paper Trail:** Confirm that the documents sent back and forth, such as contracts, claims requests and performance reports, are clear and contain all required information (and no extraneous information).
- **Cash Flows:** Establish that funds are flowing as contracted in terms of timing and composition, and all calculations are being made correctly.
- **Client Perceptions:** Note what the clients are saying about the product and the service.
- **Timeliness:** Reach an agreement on the maximum number of days required to process claims payments and monitor adherence.

Partners should also have formal assessment meetings, once per quarter for the first year and then semi-annually, to allow both parties to assess their objectives and discuss deficiencies. These meetings create a regular forum to discuss larger issues in the relationship. After an initial learning period, this forum would be an opportunity to discuss potential new products, as well as the need for pricing and/or coverage adjustments. Should changes be required, an implementation strategy should also be developed, providing enough time for staff and clients to understand the new pricing, coverage or other adjustments.

Table 5.2 Roles and Responsibilities in Outsourcing the Additional Lives Product

Relationship Element	MFI Role	Insurer Role
Initial Screening of Clients	+++	-
Product Design	+	+++
Risk Analysis	-	+++
Pricing	+	+++
Staff Training on Insurance Concepts	+++	+
Testing	++	++
Contract Preparation	+	++
Promotion to Clients	+++	-
Assisting Clients with Insurance Preparations (e.g., beneficiary designation)	+++	-
Processing of Insurance Applications	+	+++
Premium Collection	+++	-
Transaction Logging	+	+
Client Monitoring	+++	-
Claims Application Assistance	+++	-
Claims Review and Assessment	++	++
Claims Payment	+	++
Capital Mobilisation	-	+++
Reinsurance	-	+++
Internal Audit	+	++
Conflict Resolution	++	+++
Market Research and Feedback	+++	-
Statutory Obligations (e.g., reporting)	-	+++
New Market Development	+	-
Legal Issues	-	++



Perceived Strengths and Challenges

Outsourcing the business to an insurer has many advantages, and some challenges, as summarised in Table 5.3. The key issue for MFIs is that they take on no risk, they limit their administrative burden, and yet they still earn a commission while satisfying clients' needs—without creating a new business structure.

Table 5.3 Strengths and Challenges of Outsourcing the Business

Strengths	Challenges
<ul style="list-style-type: none"> ● Agent risk is extremely limited ● Significant operational efficiencies are gained ● Requires fewer special skills of the agent than doing it oneself ● Synergies maximised because partners focus on their own expertise ● Insurer has access to reinsurance markets ● Insurer has access to significant reserves if needed ● MFI earns commissions without risk, while insurer earns profits 	<ul style="list-style-type: none"> ● Some cultivation might be required to pique the insurer's interest in the "micro" market, particularly for more complex coverage (e.g., health or property) ● Relationship management is required to ensure smooth operations ● Fair terms for all must be negotiated requiring MFI management to be knowledgeable about insurance ● Both parties are dependent on the quality of the other ● Conflict could emerge if the insurer pays claims late or does not pay at all ● Regulatory issues regarding insurance agents might require negotiations with the national insurance commission, but is much less of an issue than negotiating for an insurance license

KEY TERMS and CONCEPTS



- | | |
|---|--|
| ✓ <i>Claims payment methods</i> | ✓ <i>Premium payment methods</i> |
| ✓ <i>Claw back</i> | ✓ <i>Product manufacturing</i> |
| ✓ <i>Outsourcing</i> | ✓ <i>Product servicing</i> |
| ✓ <i>Partner-agent model</i> | ✓ <i>Selection of insurance partners</i> |
| ✓ <i>Partnership roles and responsibilities</i> | ✓ <i>Tender offer</i> |

5.2 Outsourcing Risk through Portfolio Insurance

The second outsourcing option is for MFIs to purchase a loan portfolio policy to cover borrower deaths. This arrangement reduces the risk of client death and requires very limited administrative responsibilities. A policy covering borrower death would work in a similar manner to other insurance coverage that the MFI might maintain, such as fidelity or auto insurance. With this outsourcing option, an MFI can avoid all insurance activities except death confirmation. Generally the MFI will have to pay a small **excess** or **deductible**, thus it retains some death risk, though this is significantly reduced.

Although portfolio insurance is an outsourcing option, its relevance is limited. The purchase of insurance to cover death risk would require payment to the insurer to cover not only the risk premium, but also its operational costs. So it might seem cheaper for the MFI to simply write off the loan balances lost due to death. With this outsourcing arrangement, the primary protection for the MFI is from catastrophic losses, in case a large percentage of its clients die from a natural disaster or epidemic, for which the insurer would have reinsurance. Portfolio insurance may make sense when an MFI operates in a high-risk area or has a concentration of very large loans where paying them from reserves might be too painful for the MFI.

This form of outsourcing provides marginal protection for the MFI and the client. In fact, some borrowers begrudge mandatory credit life policies (see Box 5.2). This arrangement also does not create a foundation for the MFI to offer other insurance products in the future—portfolio insurance provides the same protection as **Credit Life** cover, but does not facilitate eventual access to **Additional Benefit**, **Additional Lives** or **Continuation** products.

Requiring Clients to Find their own Insurance

5.2

BOX

Requiring Clients to Find
their own Insurance

Credit life coverage is sometimes perceived as predatory. It is typically sold as compulsory insurance and, relative to the benefits one receives from straight term insurance, is sometimes expensive. Adding to its dubious reputation, in many countries it is coupled with loans to low-income groups because they have limited collateral. If it were not compulsory, few clients would buy it.

To resolve this dilemma, PRODIA, an MFI in Burkina Faso, requires clients with large loans to purchase credit life cover (with PRODIA as beneficiary) from whichever commercial insurer they choose. Although the mandatory element is still present, the absence of any profit sharing or commission earning arrangement between PRODIA and these insurers means that PRODIA cannot be suspected of being predatory, and the cost of the policy is kept reasonably modest.

5.3 Outsourcing through a Separate Unit

The third outsourcing option is for an MFI to create a subsidiary or separate company to which it outsources core insurance activities. Some organisations, like CARD Bank in the Philippines (see Box 5.3), started offering insurance within the MFI. After some experience and further analysis, they recognised that the insurance business posed a severe risk to the stability of the MFI. In these cases, one response is to create a separate legal entity to offer and manage the microinsurance business. This separates the insurance risk from the MFI's capital position.

The process of outsourcing to a separate unregulated unit is similar to that of outsourcing to a regulated insurer. Since the MFI is not the insurer, it carries limited risk; the separate unit acts as the insurer, taking on the risk and the technical aspects of insurance product development and management. Outsourcing to a separate unit is most applicable for large MFIs operating in environments where insurance regulations accommodate this arrangement.

SEWA also considered establishing a separate business entity to which it could transfer its current insurance services. The intention was to segregate the insurance risk by creating an insurance cooperative owned by its clients. SEWA has since decided against forming its own insurance company for regulatory reasons, including a minimum capital requirement over US\$20 million.

CARD's Dangerous Annuity Product

5.3

BOX

CARD's Dangerous Annuity Product

CARD established its Members' Mutual Fund in 1994 to serve as an insurance fund for its borrowers. It started with a 5-cent weekly premium, which provided \$50 for burial in case of death and \$50 to the spouse and any legitimate children. Since this product was so profitable, CARD expanded the benefits by offering a disability payment of \$10 a month for 3 months in case of injury and a pension of \$20 a month for 5 years for persons over 60 years old—all for the same premium amount.

The response to the product was enormous. Between 1995 and 1997 membership increased from 12,000 to 27,000. The premium incomes to CARD were substantial. The organisation seemed to have found a new income source. However the client profile was quickly changing. A study in 1997 showed a large and growing number of members in their upper 50s. About 40 percent of the clientele were within 5 years of being able to collect the pension. The projected payouts would break the fund and collapse the bank. CARD's first response was to raise the premium to 10 cents per week.

In 1999, it was no longer possible for Filipino NGOs to legally operate a mutual fund or insurance company. The insurance fund was then registered as a separate entity, CARD-Mutual Benefit Association or CARD-MBA. A separate board of directors, the officers of which come from the membership, governs it. It was important for CARD to construct a firewall against liability to the MFI.

CARD conducted a legal resolution to extract itself from legal liability. The first step of the new entity was to get an actuarial study to determine life expectancies and projected payouts.

Adapted from Churchill, Hirschland and Painter (2002).

5.3

To outsource to a separate microinsurance unit, the MFI needs to create such a unit. To separate the insurer from the MFI, consider the following:

- Majority capitalisation from non-MFI sources to protect the MFI from losses; commonly the unit would be established as a cooperative
- Develop a new and different board from the MFI. The MFI should be represented, but should not control the board either through chairpersonship or majority seats
- Physically separate the operations of the insurer from the MFI

"Insurance is no joke!" Jaime Aristotle Alip, CARD Executive Director



- Hire and develop a separate specialised staff for the insurance business
- Legally register as a separate company
- Comply with the national insurance regulations

Once the company is created, the financial flows and transactions are the same as for outsourcing to regulated insurers.

Table 5.4 Strengths and Challenges: Outsourcing to a Separate Unit

Strengths	Challenges
<ul style="list-style-type: none"> ● The new insurer may be more flexible in developing and providing appropriately developed products for the MFI market than traditional insurers ● The risk is separate from the MFI yet the MFI is still able to obtain services for its clients and can influence the activities of the insurer 	<ul style="list-style-type: none"> ● The MFI has to create an insurance company ● Creating a new insurance company for the MFI's business is inefficient if there are willing insurers to take on the business ● If the separate insurance unit is unregulated, it creates additional risk ● A new insurer will not have the local risk experience of an existing insurer and will likely have to price more conservatively costing the clients more

5.4 Outsourcing Risk through Reinsurance

Reinsurance is simply insurance for insurance companies. It helps to spread and/or limit the risk of the direct insurer. Reinsurance reduces an insurer's vulnerability to covariant risks that might be caused by a natural disaster or an epidemic. It is especially important for smaller insurers that are constrained by relatively lower levels of capital, and are thus unable to take on large clients or large numbers of clients. Reinsurance can stabilise an insurer's finances by establishing a loss ceiling, above which the additional losses are covered by the reinsurer. This arrangement improves the predictability of the insurer's expenses and profits.

Reinsurance can also have important technical assistance and oversight functions. Reinsurers want to make sure that their primary insurers make good underwriting decisions, price their products appropriately and have effective means for controlling risks such as moral hazard and adverse selection.

Typically a reinsurance underwriter will evaluate the primary insurer's entire range of business. Reinsurers will assess institutional and financial stability, policies and procedures of the insurer and the quality of staff and management. They will also closely evaluate the loss exposure and the terms of coverage of the product intended for reinsurance, and suggest changes that need to be implemented if the insurer wants to retain the reinsurance.

The most appropriate reinsurance for microinsurers would be an **aggregate excess policy**, in which the reinsurer agrees to cover total claims over a certain value of an aggregate pool of policies.²² For example, a direct insurer takes an aggregate excess reinsurance policy with an attachment point of US\$100,000. If the insurer suffers aggregate losses during the period of US\$150,000, the reinsurer would cover US\$50,000. If the aggregate loss were US\$75,000, the insurer would cover the total loss. With an aggregate excess policy, premiums and losses are usually settled annually.

A microinsurer with significant exposure and limited capital and reserves should seek out such a reinsurer where possible. Unfortunately, unregulated microinsurers are not likely to gain access to the reinsurance market—a possible exception maybe through a partnership with an insurance company whereby a formal insurer assumes the role of a reinsurer for an MFI insurer.

Table 5.5 Strengths and Challenges: Outsourcing through Reinsurance

Strengths	Challenges
<ul style="list-style-type: none"> ● A reinsurance relationship can enhance the stability of the insurer ● Reinsurer can limit or share the risk of a microinsurer, which can help an MFI Insurer to grow ● A microinsurer can gain access to underwriting expertise ● Reinsurer oversight will help to maintain professionalisation of a microinsurer 	<ul style="list-style-type: none"> ● The MFI must be an insurer ● Few reinsurers will reinsure a non-regulated insurer

²² A **stop loss policy** is a similar arrangement whereby reinsurers cover losses over a certain percentage of premiums.



5.5 Outsourcing by Long-term Contracting of Specific Activities

The fifth type of outsourcing is to hire a consulting firm or an insurance company to regularly perform certain insurance functions. Several insurance activities could be outsourced on a continuous basis, including:

- **Underwriting** can be executed by an insurer or reinsurer, at least until an MFI cultivates in-house expertise.
- **Pricing** can be outsourced to an actuary who could assist with risk assessment, initial pricing and ongoing experience rating.
- **Internal Control** can be contracted to an audit firm, which could design an internal control system and perform regular internal audits.
- **Premium Collection and Claims Disbursement** can be processed at a bank in the same way many MFIs disburse loans and collect repayments.
- **Data Management**, including information warehousing and analysis, can be performed by an information technology company.
- **Market Research** can be contracted to a marketing firm or university.

How it Works

Outsourcing specific activities is common for MFIs. Frequently banks are used to collect and disburse loan funds, and retain clients' savings, because banks generally have better cash processing, security and investment structures than MFIs. Market research is also frequently contracted out by MFIs that want good marketing data but do not want to disrupt their operations or invest in staff talent to collect and analyse the information.

By outsourcing insurance activities through long-term contracts, an MFI can offload some specialised tasks to organisations or individuals that are skilled in those areas. All of the insurance risk, however, remains with the MFI. All insurance activities, except those that are outsourced, are the responsibility of the MFI—and even the outsourced activities, the MFI has to oversee and manage. This outsourcing arrangement might be most appropriate for an MFI that intends to spin off a separate insurance company eventually, but does not yet have a sufficient volume of policyholders or total cover. Once the insurance business reaches a certain scale, then the MFI may decide that there are sufficient revenues to justify hiring in-house expertise.

Selecting a Contractor

The first step in selecting a contractor is to understand the needs of the institution. An honest assessment of the MFI based on the list of insurance activities (see Tables 5.2 and 2.1) should help to identify possible deficiencies and therefore areas where long-term contracting might be appropriate. Remember that contracting can be expensive. An MFI with a number of insurance deficiencies should act as an agent for a regulated insurer rather than taking on the insurance business.

If an MFI chooses to employ a contractor, it must find a person or organisation that meets its standards. The best approach is to develop a **tender offer** noting specifically what it wants completed, and then send the tender to several potential contractors for comparative purposes. When receiving proposals from interested contractors, the MFI should assess them using an assessment system that weights the most significant aspects of the activity. Figure 5.4 provides a sample assessment grid that could be used for selecting a market research firm.

Sample Proposal Assessment Form

FIGURE
5.4

Your Way MFI		Assessment of market research proposals				
Selection Ranking		Objective: A firm or individual which has significant experience in market research methodologies and a strong reputation to conduct on-going market research of our Secure Life insurance product.				
Proposal ID:		1	2	3	4	5
Reputation of the researcher / firm	Excellent = 5, average = 3, none = 0					
Market research experience of researcher team	Avg per person: None = 0, <1 yr = 1, 1-2 yrs = 3, >2 yrs = 5					
Market research experience of research team on MFI issues	Avg per person: None = 0, <1 yr = 1, 1-2 yrs = 3, >2 yrs = 5					
Market research experience of research team on insurance issues	Avg per person: None = 0, <1 yr = 1, 1-2 yrs = 3, >2 yrs = 5					
Cost	< budget = 3; > budget = 1					
Membership in professional association	No = 0; Local = 1; National = 3; International = 5					
Specialized training of any team members	1pt for every 2 in qualitative or quantitative methods					
Experience with research techniques	None = 0, quantitative only = 2, qualitative only = 4, both = 5					
Score:						



This assessment form includes the key criteria for a contractor to meet the MFI’s market research needs. The point scale and even the items assessed are likely to be different for each institution and each search—the important thing is to identify the most important issues for the MFI and to use an objective approach to assessing the candidates.

Table 5.6 Strengths and Challenges of Outsourcing through Long-term Contracts

Strengths	Challenges
<ul style="list-style-type: none"> ● If an MFI can perform almost all of the insurance activities, the addition of a long-term contractor may complete the skills required ● Net profits (if any and net of contractor fees) would all go to the MFI ● Working with a consistent contractor will build their knowledge of the MFI’s insurance business that will improve contractor effectiveness over time 	<ul style="list-style-type: none"> ● MFI will still have to create an internal insurance business ● All the risk remains with the MFI ● An MFI needs to be very clear about how their actions relate to the national insurance laws ● Consistent quality might prove difficult to maintain in a contractor

5.6 Outsourcing Individual Activities to Consultants

Outsourcing one-off activities to consultants is similar to outsourcing long-term activities. The MFI “owns” the insurance business and assumes the risk. As with long-term contracts, the MFI needs to objectively assess its deficiencies and solicit proposals to fill the gaps.

The difference with this option is that the consultant or consulting firm simply performs one task. There is no continued relationship. Several insurance activities can be performed in this manner by consultants, such as:

- **Product Design, Risk Analysis and Pricing:** An insurance consultant or actuary could be hired on a one-off basis to address these issues. A similar professional should be contracted at least once per year to reassess the design, risk, and pricing. During the first year the reassessment should occur after the first six months.

- **Staff Training:** Initial training for staff on insurance concepts and fundamentals can be contracted out to an insurance training institute.
- **Testing:** A product development and pilot-testing specialist can conduct product testing with the MFI staff.
- **Contract Preparation:** An attorney should prepare the insurance contract.

As with outsourcing long-term activities, the MFI must still develop an insurance business and carry out all the activities of the insurer. Even these outsourced activities will have to be supervised by insurance-savvy MFI management. For the most basic products presented in this manual (**Credit Life** and **Credit Disability**), outsourcing singular activities to consultants is a reasonable option.

Table 5.7 Strengths and Challenges of Outsourcing to Consultants

Strengths	Challenges
<ul style="list-style-type: none"> ● If an MFI can perform all but the very technical insurance activities, a short-term consultant might be able to perform one-off tasks for the institution ● Net profits (if any and net of consultant fees) would all go to the MFI ● Working with a consultant on key insurer skill areas will help the MFI to improve their chances of success with the insurance business 	<ul style="list-style-type: none"> ● MFI will still have to create an internal insurance business ● All the risk remains with the MFI ● Once the consultant is gone the MFI will be on its own, managing the entire insurance business

5.7 Conclusion

With any of these outsourcing options (except for portfolio insurance), an MFI must exert considerable energy in managing relationships. In the easiest case, hiring short-term consultants, the MFI should oversee the activity and confirm compliance with the contract. Maintenance of long-term relationships—with insurance partners, reinsurers and contractors—requires more work. Experience thus far suggests that it is worth the effort. Clients get better products at a cheaper price, the MFI shares or virtually eliminates some or all of the risk and/or responsibility with insurance experts, and the insurance industry gains access and exposure to the low-income market.



Besides the six presented here, there are likely other combinations that might result in effective outsourcing opportunities. The main purpose of this chapter is to encourage MFIs to analyse their own capacity to develop and manage a microinsurance business, and then consider ways of minimising their risk and the administrative burden. To select an outsourcing option, an MFI needs to look at what product or products it wants to offer (based to some extent on market research findings), and then objectively assess the capacity of the MFI to provide the insurance product within the existing regulatory environment.

KEY TERMS and CONCEPTS



- ✓ *Aggregate excess policy*
- ✓ *Excess or deductible*
- ✓ *Portfolio insurance*
- ✓ *Reinsurance*
- ✓ *Selecting a contractor*
- ✓ *Stop loss policy*
- ✓ *Subsidiary or separate company*
- ✓ *Tender offer*

Further Reading on Outsourcing

Other valuable resources that can help prepare for negotiations with potential partners or provide more details about outsourcing include:

- Brown, W., C. Green and G. Lindquist, 2000, “A Cautionary Note for Microfinance Institutions and Donors Considering Developing Microinsurance Products,” USAID/MBP, Bethesda MD, www.mip.org.
- Brown, W., C. Churchill, 1999, “Providing Insurance to Low-Income Households, Part 1: A Primer on Insurance Principles and Products,” USAID/MBP, Bethesda MD, www.mip.org.
- McCord, M.J., 2000b, “Microinsurance in Uganda: a case study of an example of the partner-agent model of microinsurance provision - AIG/FINCA Uganda - group personal accident insurance,” Nairobi, Kenya: MicroSave-Africa, www.microinsurancecentre.com.
- McCord, M.J., J. Isern and S. Hashemi, 2001, “Microinsurance: A Case Study Of An Example Of The Full Service Model Of Microinsurance Provision, Self-Employed Women’s Association,” Nairobi, Kenya: MicroSave Africa, <http://www.microinsurancecentre.org>.

Appendix 5

**The Partner-agent Model in
Uganda**

This case study is adapted from Michael McCord's paper "Microinsurance in Uganda: A case study of an example of the partner-agent model of microinsurance provision—AIG/FINCA Uganda—group personal accident insurance," which can be downloaded from www.microinsurancecentre.com.

One of the hurdles of extending insurance to a new market, especially the very poor, is finding an efficient delivery channel. Some MFIs have an efficient delivery channel to the very poor and a desire to offer quality insurance products to their clients, but do not have the expertise and reserves to develop and manage an insurance product. Insurers have the product and the reserves, but do not have a way to reach this market. These respective assets and needs are what make a partnership between MFIs and insurers so potentially perfect.

In 1995, management at FINCA Uganda (FU) recognized the negative consequences when clients died with outstanding loans. When a borrower died, her accumulated savings were used to repay the loan, and then the group-guarantee mechanism was activated to complete the payments, if necessary—which was often the case. Thus, surviving clients were losing both their friend and their money.

In several instances, this destabilized the groups resulting in repayment problems. Loan officers reported difficulties for families dealing with the sudden loss of a member, especially the mother (since virtually all FU clients are women).

FU management thought that an insurance product might help mitigate these issues. Management also considered that such a product might help to differentiate the MFI from competitors.

The management at FINCA Uganda created logistical mechanisms through which a group personal accident or life insurance scheme might work. They collected basic data on client death rates and a summary of FU growth plans. With this information, they tried to entice insurers to provide the desired life insurance. Two insurers (including AIG at first) rejected the idea.



When a new Managing Director for AIG Uganda arrived, the idea was introduced to him and, after a review by his underwriting team, he agreed to partner with FU. Although there was little hard data to assess the insurance market, AIG decided that the idea had merit, especially since the proposed product fit directly into AIG's group personal accident line. The motivations for entering into this partnership for both FU and AIG are summarised in Table 5.8.

Table 5.8 Primary Objectives of the Two Parties

AIG	FINCA Uganda
<ul style="list-style-type: none"> ● Reach new market (particularly the micro market) ● Generate profits 	<ul style="list-style-type: none"> ● Improve client retention ● Improve morale among groups whose members die ● Develop an advantage over competitors ● Develop a product that helps clients to ease their family's transition without her

AIG could not, however, offer a term life insurance product, as FU had hoped, because the insurer did not carry a Life Product license. In Uganda, as in many countries, the insurance industry is split into two areas by the regulators: Life and Non-Life business. To obtain a license to sell either of these lines in Uganda, a company is required to hold roughly US\$1 million. AIG had not identified enough of a "Life" market in Uganda to warrant such an investment. Thus, the death coverage was limited due to the regulatory environment.

Product Development and Design

AIG accepted the basic market information that FU management provided. Little research was actually conducted in preparation for this product since AIG deemed the cost of research to be significantly greater than the potential claims. The insurer considered itself protected from significant loss due to several factors:

- AIG saw this as one policy within their Group Personal Accident portfolio, not a new product
- The insurer recognized that short insuring cycles (4 month loans) reduced its risk since it could cancel the policy after a cycle

- AIG had more than sufficient reserves to cover any problems without significantly impacting the company

Effectively market “research” for AIG is the monthly analysis done on the activity related to the policy, which is more like action research or learning by doing.

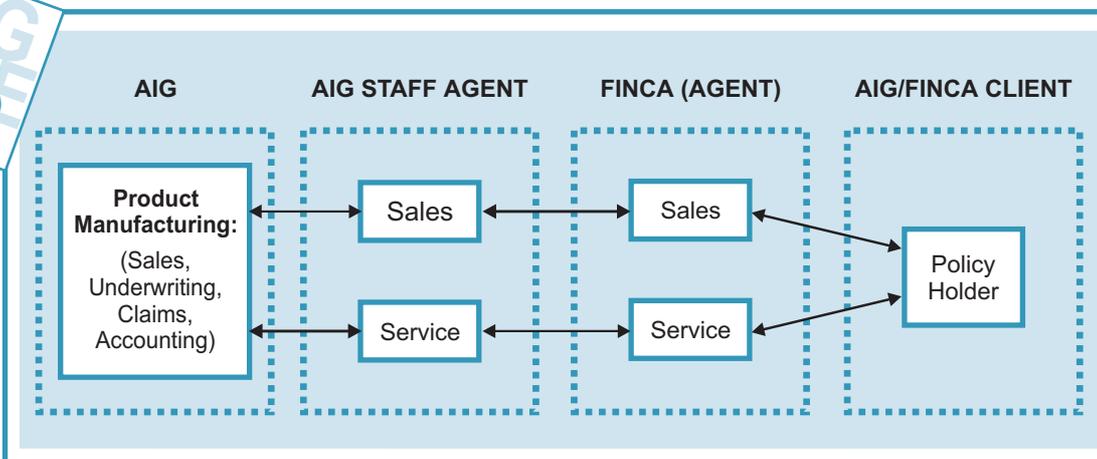
The product development costs were kept to a minimum since AIG was simply adjusting an existing product. The cost would have been much higher if the MFI had offered the product on its own since it would have had to create a new unit to accommodate the new business.

The allocation of tasks was also structured to minimize the total time involved in the sale and service of the product. Because AIG retains the risk, it makes the final decision on the pricing and product structure, and it handles all claims. FU, because it has people in the field with the clients each week, does the basic marketing and coordination of claims and acts as the pass-through for information to and from the clients. Transactional documents between the companies are simply documents that were already being produced by FU for other purposes.

Once the basics were agreed to, AIG’s agent provided training sessions to FU staff and the product was launched. The breakdown of activities for the Group Personal Accident Policy is shown in Figure 5.5.

AIG/FINCA Uganda Group Personal Accident Insurance

FIGURE
5.5





For AIG, the activity represents one policy and their operations treat it as such. From a staffing and accounting perspective, AIG activities related to FU are similar to those of all other large accounts. AIG management asserts that this policy, though not the most valuable, is within the top five policies of the office in terms of premium value.

AIG calculated the risk premium based on FU's death rate data, as well as a review of the actuarial statistics for Uganda. Additional costing components included an estimate for overhead (10 percent of premium price), agent commission (20 percent of premium price), and an expected base level return (at least 30 percent of premium price), which is the common cost structure of AIG's Group Personal Accident line. Because of the anticipated volume of this product, at least in the early stages, no additional reserves were deemed necessary.

AIG's calculations resulted in a flat price for the product. To pass the price on to the clients in a manner reflective of variable risk, it was decided to tie the price to the loan portfolio, since that is the source of the variability. Thus, insurance was priced as a once-per-cycle cost to the client of 1.0 percent of the initial loan amount. Although interest payable was also covered by the insurance, this was not directly factored into the price.

Results

The initial price proved more than sufficient and was, in 1999, reduced by half, while coverage was increased.

AIG's objective was to make profits within their expected range, and to offer a product to the lower-income markets without the challenges of working with poor people, such as labour intensity, low nominal margins, strong marketing efforts. By working with FINCA, AIG dramatically reduced the barriers to market entry. In terms of profitability, they reviewed the account on a quarterly basis, assessing premiums against claims and operational costs to ensure that their profit was within the acceptable range for the Group Personal Accident product.

In small ways, the insurer adapted the product to the specific needs of FU, especially with regards to paperwork, the promise to accept FU's confirmation of death, and to process claims within 7 days. This required their staff to be aware of the agreements and had essentially no cost impact.

The financial results, summarised in Table 5.9, show that this account has been highly profitable for AIG, especially in the earlier, more rudimentary structure. In

June 1999, the basic policy was expanded to family members and the price paid to AIG was cut from 1 percent to 0.5 percent of principal borrowed per loan cycle. The results of this adjustment are visible in the drop from a 63 percent return in 1997 and 1998 to 34 percent in 2000. AIG management indicated that acceptable ratios for any GPA policy are a loss ratio of ≤ 40 percent and a profit ratio of ≥ 30 percent. Though close to these limits, this account still falls within the acceptable range used by AIG management.²³

Table 5.9 Financial Information on AIG/FU GPA Insurance²⁴

Fiscal year	Pre-mi- ums col- lected US\$	Claims losses US\$	Loss Ratio %	Admin- istrative costs %	Com- mis- sions %	Profit Ratio %	Esti- mated Profits US\$	Ex- change rate
1997	2,908	209	7.2	10	20	62.8	1,826	1,050
1998	21,739	1,515	7.0	10	20	63.0	13,702	1,300
1999	30,000	3,784	12.6	10	20	57.4	17,216	1,460
2000	33,760	12,241	36.3	10	20	33.7	11,391	1,800

Have AIG's objectives been met? Besides being profitable, AIG believes the product has generated significant public relations value and promoted a more positive attitude towards insurance. For example, AIG is always mentioned at the funerals of the insured and this provides a large audience that sees a positive impact from insurance. Part of AIG's corporate growth is related to this product, including several up-market clients who were attracted to AIG from this kind of promotion.

As a testament to its belief in the benefit of a microinsurance product, AIG is actively marketing its GPA to other MFIs in the region.

²³ The profit levels discussed in this paper relate to underwriting profit only. No interest income either direct or by proxy is included in this calculation.

²⁴ The source of this data is internal documents from AIG and calculations made by the author.

MANAGERIAL CONTROL

The purpose of this chapter is to:

- Articulate the methods for posting basic accounting transactions for different outsourcing options
- Explain the basic financial management issues of investment and capitalisation in an insurance business
- Describe the key issues relating to performance monitoring of an insurance operation
- Introduce key ratios for monitoring the performance of an insurance operation

In insurance, financial controls are crucial to monitor and manage the business performance. This chapter is divided into three areas that reflect the key aspects of managerial control. The first section addresses the accounting transactions for the different outsourcing options presented in the previous chapter. The second section looks at the financial management issues of investment and capitalisation. Finally, performance monitoring is discussed in the third section, including performance ratios, unit costing and tracking claims.

6.1 Accounting Transactions

Insurance accounting can be very complex for a number of reasons including complicated tax laws, long-term products, upfront commissions that are subject to clawbacks, and deferred or variable income streams. Fortunately, the products outlined in this manual are not particularly complex because these have short terms and straightforward income arrangements.

This manual details five insurance products: **Credit Life**, **Credit Disability**, **Additional Benefit**, **Additional Lives** and **Continuation**. The previous chapter discussed six outsourcing options. This section describes the debit and credit transactions for these outsourcing options, which are consolidated into three types. The simplest is basic portfolio insurance. The second type is when the MFI outsources the insurance business to an insurer. The third and most complex is when the MFI is the insurer.

Because of the importance of controlling and properly costing insurance products, it is necessary to maintain a separate set of books for the insurance



business if the MFI is the insurer. In other cases (outsourcing the insurance business or purchasing portfolio insurance) recording transactions within the main books of the MFI is appropriate, although using special accounts related to the insurance business.

Transactions for Portfolio Insurance

The easiest accounting transactions are for loan portfolio insurance. Accounting transactions reflect the payment of premiums by the MFI to the insurer and claims processing, as detailed in Table 6.1.

Table 6.1 Transactions with Portfolio Insurance²⁵

	Debit	Credit
1. Premiums payments (by MFI to insurer)	Prepaid Insurance (A)	Bank (A)
2. Monthly Premium Accrual (for the applicable monthly insurance premiums)	Portfolio insurance expense (E)	Prepaid insurance (A)
3. Claims Notification	Insurance claim pending (A)	Loan account (A) (of the deceased borrower)
	Insurance Claims expense (for the excess or deductible not covered by insurance) (E)	Interest Receivable (A) (in respect of accrued interest due on the loan)
	Interest Income (for interest accrued between the date of death and claim posting) (I)	
4. Claims receipt	Bank (A)	Insurance claims pending (A)

Premiums

The MFI will generally pay premiums quarterly, semi-annually or annually. Discounts are often offered for annual payments, although monthly payments

²⁵ Note each account indicates the general account type with an A, L, I or E, which represent Assets, Liabilities, Income and Expenses, respectively.

might correspond better to the MFI's cash flow. If the MFI makes advance payments, they are treated as prepaid expenses (1) and then accrued as a monthly expense (2). MFIs that pay insurance premiums monthly do not need to use the accrual method; they just debit "portfolio insurance expense" directly and credit "bank".

Claims

For claims notification (3), MFIs should record the transaction when the claim application is received from the field, rather than wait until the insurer pays the claim. In this transaction, the outstanding balance and interest receivable on the loan are cleared as at the date of death. If an MFI uses accrual accounting, adjustments may be required to reverse the interest accrued after death.

As an example, ABC MFI has portfolio insurance that pays eighty percent of lost principal and interest when borrowers die. A client dies on March 1 with outstanding principal and interest due of US\$22.50 and US\$1.75, respectively. The MFI is notified of the death on March 16 when the outstanding balances are US\$22.50 and US\$2.25, respectively. (Note that the repayment status of the loan is not relevant to the coverage, and that the interest due was accrued by the MFI.) Posting this transaction would appear as follows:

Journal Voucher 55-001		
Account	Debit	Credit
Insurance Claims Pending $((22.50+1.75)*0.8)$ (A) (Note: represents the claim receivable from the insurer)	19.40	
Insurance claims expense $((22.50+1.75)*0.2)$ (E) (Note: Portion of claim not covered i.e. the excess)	4.85	
Interest income $(2.25-1.75)$ (I) (Note: Reversal of interest accrued between date of death and date of claim)	0.50	
Loan Account (A) (Note: Loan principal at date of death)		22.50
Accrued interest receivable (A) (Note: Interest accrued as receivable at date of claim)		2.25
Total:	24.75	24.75
Insurance claim on the death of Mrs. XYZ. Date of death = 1 March 2000. Claim submitted to XYZ Insurance on 17 March 2000.		

By holding claims due in the asset account "Insurance Claims Pending," it is easier for management to track the payment from the insurance company and control the claims processing duration—this is true for all outsourcing options.



A somewhat easier method is to write-off the value of the loan to the reserve for possible loan losses on the date of death. This would be treated just as other loan losses with a debit to the reserve and a credit to the loan portfolio. At the same time accrued interest would be reversed from interest income. However, it is important to track the value of death claims separate from other write-offs. Thus, an insurer using this method should create a separate “Reserve for Possible Client Death Claims” as a contra asset (or provision) against the loans account. Using the example above, the transactions to write-off of Mrs. X’s loan would be as follows:

VOUCHER
55-001.1

Journal Voucher 55-001.1

Account	Debit	Credit
Reserve for Possible Client Death Claims (Contra-A) (Note: This is the charge-off of the principal amount)	22.50	
Interest Income (I) (Note: Reversal of total interest accrued on this account through date of notification. Assumes the entry is posted on the date of notification.)	2.25	
Loan Account (A) (Note: Loan principal at date of death)		22.50
Accrued interest receivable (A) (Note: Interest accrued as receivable at date of notification and posting.)		2.25
Total:	24.75	24.75

Insurance claim on the death of Mrs. XYZ. Date of death = 1 March 2000.

Sample Vouchers and Separate Books

6.1 BOX

Sample Vouchers and Separate Books

For simplicity purposes, the sample vouchers presented in this manual reflect transactions of a single company. If the MFI does not outsource the insurance business, however it should keep separate set of books for its insurance activities. Separate books will require that the insurance transactions shown above (premiums and claims) would be posted on two journal vouchers: one for the MFI’s main books and another for the insurance books. Where there are transactions between the two businesses, “inter-company” accounts such as “due from MFI (or MFI insurer)” and “due to MFI (or MFI insurer)” should be used. Such accounts often involve reconciliation difficulties if they are not carefully managed. They should therefore be reconciled and cleared on a daily basis.

Transactions for Outsourcing the Insurance Business

For MFIs that outsource the insurance business and act as insurance agents, the accounting transactions primarily reflect the pass-through of funds to and from the insurer. Table 6.2 summarises the particular transactions for this relationship.

Table 6.2 Transactions for MFI Agents

	Debit	Credit
1. Premiums payments (taken from loan proceeds)		
1.a Loan Disbursement	Loan Account (A)	Bank (A) Insurance premiums held for Payment (L) (due to insurer)
1.b Loan Portfolio Insurance Premiums Paid to Insurer (when commission is netted from payment)	Insurance premiums held for Payment (L)	Bank (A) Insurance Commission Income (I)
2. Premiums payments (paid in cash)		
2.a Payment of premium by client	Cash (A)	Insurance premiums held for Payment (L)
2.b Payment to insurer (aggregate of all payments for the period) (when commission is netted from payment)	Insurance premiums held for Payment (L)	Bank (A) Insurance Commission Income (I)
3. Claims Notification to insurer (clears loan account balance)	Insurance claims pending (A)	Loan account (A) Interest Receivable (A)
4. Claims receipt (for a Credit Life disbursement)	Bank (A)	Insurance claims pending (A)
5. Commissions received (if agreement does not allow netting them from the premiums paid to the insurer)	Bank (A)	Insurance Commission Income (I)



Premiums and claims received are collected by the MFI and passed on to the insurer in batches, usually monthly. Claims payments are processed by the insurer and passed on to the beneficiary through the MFI (for **Additional Benefit**, **Additional Lives** and **Continuation**), or paid to the MFI as the beneficiary, as in the case of **Credit Life** and **Credit Disability**.

Premiums

Premium payments can be collected in at least three ways. For the credit-linked products—**Credit Life**, **Credit Disability**, **Additional Benefit** and **Additional Lives**—the MFI can net the premiums out of the loan amount disbursed to their clients. For example, if the premium rate is 0.50 percent of the loan disbursed and the loan request is for US\$150, the transaction would be booked as follows:

Journal Voucher 55-002		
Account	Debit	Credit
Loan Account (A)	150.00	
Bank (A)		149.25
Insurance premiums Held for Payment (L)		0.75
Total:	150.00	150.00
Disbursement of Loan number 32-1492 for Mr. QRS.		

With this approach, the MFI needs to explain to clients why the borrowed amount is not what they receive, but otherwise it is an efficient payment mechanism that is not vulnerable to fraud. A variation is to increase the loan size by the premium amount, so in this example the loan would be for \$150.75, which allows clients to receive the loan amount that they wanted. In both cases, however, clients pay interest on the premium.

The second option, used with the **Continuation** policy, is to collect premiums from the clients in cash. If this approach were used with the other four products, it would avoid misunderstandings regarding the difference between the disbursed and requested amounts, but it would create additional risks and inefficiencies because manual cash transactions involve staff time to collect money, write the receipt, and possibly carry the payment to another place for depositing.

A third option, to charge the premium through the interest rate, is appropriate for mandatory insurance and from an accounting perspective may be more

efficient than the other premium payment methods, although it lacks transparency. If in the previous example, the MFI collected the premium through the interest rate, the disbursement transaction would appear without a premium payment. The premium would be booked at the first client payment. For example, for an MFI with twenty percent flat interest rate, lending US\$150 repayable in six equal monthly instalments, the first payment would be as follows:

Journal Voucher 55-003		
Account	Debit	Credit
Banks (A) (US\$150/6 + (US\$150x0.20)/6)	30.00	
Loan Account (A) (US\$150/6)		25.00
Interest receivable (A) (US\$150x0.20)/6 – (US\$150x0.005)		4.25
Insurance Premiums Held for Payment (L) (US\$150x0.005)		0.75
Total:	30.00	30.00

First loan repayment of Loan number 32-1492 for Mr. QRS, inclusive of insurance payment.

Commissions

An MFI's insurance commissions can be accounted for in two ways. The first is to net out the commissions from the premium payments to the insurer. This method gets the commission to the MFI faster and saves several steps for both the MFI and the insurer. For example, if the MFI insured one thousand clients, each borrowing US\$150 during the month, and the MFI receives a fifteen percent commission out of a premium rate of half-a-per-cent of loan value, the MFI payment to the insurer would be booked as follows:

Journal Voucher 55-004		
Account	Debit	Credit
Insurance Premiums Held for Payment (L) (1000 x US\$150 x 0.005)	750.00	
Bank (A)		637.50
Life Insurance Commission Income (I) (1000 x US\$150 x 0.005 x 0.015)		112.50
Total:	750.00	750.00

Premium payment to ABC Insurer net of 15% commission, covering 1,000 loan disbursements totalling US\$150,000.



The other option is to receive the commission payment from the insurer for designated periods, such as quarterly or annually, however this requires more administrative work than simply netting the commission from the premium payments.

Claims

Claims requests are handled in three steps. First, the loan officer (with the assistance of borrower groups where applicable) verifies the claim's validity. Second, the MFI ensures that the claim is complete, usually through a check by a head office administrator. The third step is to submit the documentation to the insurer.

Since insurers are notoriously slow in paying claims, the MFI and insurer should agree to a maximum period from claim submission to payment. The MFI can monitor compliance with this agreement by maintaining a list of pending claims. Thus, it is recommended that a transaction be posted when the claim is submitted to the insurer (which should be within 2 days after receipt of the claim). The transaction would appear as follows for a US\$150 borrower who died after making two of six repayments (in this example, the borrower also has an **Additional Benefit** policy for US\$200):

Journal Voucher 55-005		
Account	Debit	Credit
Life insurance Claim Pending (A)	320.00	
Insurance claim due to Beneficiaries (L) (Additional Benefit)		200.00
Loan Account (A) (Loan US\$150 – 2 repayments received of US\$25)		100.00
Interest receivable (A) (US\$150 x 0.20/6 x 4 months)		20.00
Total:	320.00	320.00
First loan repayment of Loan number 32-1492 for Mr. QRS, inclusive of insurance payment.		

The US\$320.00 will remain outstanding until the insurer pays the claim. This account should be carefully tracked to monitor the claims transaction time. An example of the accounting transactions for a settled claim is shown in Journal Voucher 55-006:

VOUCHER 55-006

Journal Voucher 55-006

Account	Debit	Credit
Bank (A)	320.00	
Life insurance Claim Pending (A)		320.00
Total:	320.00	320.00

Receipt of claim proceeds from ABC Life Insurance on Loan number 32-1492 for Mr. QRS who died 1 June 2001.

Claims could be settled quicker if the MFI made the payment itself. To expedite claims payments, if the insurer has agreed to accept the MFI's claims assessment, an MFI could pay the beneficiary in advance of receiving the funds from the insurer. Ideally the MFI could negotiate a cash advance from the insurer out of which it would pay claims. Then on a monthly basis, the insurer would top up the account once it processed the batch of claims for the period. Without this prepayment from the insurer, the MFI would have to decide whether the customer service advantages are worth the costs associated with paying the money up front, and the risk that the insurer may refuse payment. The payment of the claim to the beneficiaries would be posted as follows:

VOUCHER 55-007

Journal Voucher 55-007

Account	Debit	Credit
Bank (A)	200.00	
Life insurance claim due to beneficiary (L)		200.00
Total:	200.00	200.00

Payment of beneficiary portion of claim proceeds from Loan number 32-1492 for Mr. QRS who died 1 June 2001.

Transactions for MFI Insurers

MFI's that take on the insurance business themselves will need to develop a unique chart of accounts and a set of subsidiary books. These insurance books will be consolidated with the savings and loan books when the MFI prepares its accounts, at least monthly. Many accounting systems will do this consolidation on a daily basis. Management should carry out frequent reviews of the insurance books.



Many of the balance sheet and income statement accounts are similar to those used for credit and savings. Cash, bank, investments, fixed assets, receivables, payables, staff wages and other operating expenses, investment income and capital accounts will all be necessary. There are also several special accounts that will be required for insurance, as identified in Table 6.3.

Table 6.3 Essential New Accounts for Insurance Activities

Assets		Liabilities	
(1) Life Insurance Claims Pending		(2) Insurance Premiums Held for payment	
(3) Life Insurance Claims Pending from Reinsurer		(2) Insurance Claims Due to beneficiary	
		(3) Credit Life Claims Pending	
		(3) Credit Disability Claims Pending	
		(3) Additional Benefit Claims Pending	
		(3) Additional Lives Claims Pending	
		(3) Continuation Claims Pending	
		(3) Reinsurance Premiums Payable	
		(3) Unexpired Premiums – Credit Life	
		(3) Unexpired Premiums – Credit Disability	
		(3) Unexpired Premiums – Additional Benefit	
		(3) Unexpired Premiums – Additional Lives	
		(3) Unexpired Premiums – Continuation	
Expenses		Income	
(1) Portfolio Insurance Expense		(2) Insurance Commission Income	
(3) Credit Life Claims Expense		(3) Credit Life Premium Income	
(3) Credit Disability Claims Expense		(3) Credit Disability Premium Income	
(3) Additional Benefit Claims Expense		(3) Additional Benefit Premium Income	
(3) Additional Lives Claims Expense		(3) Additional Lives Premium Income	
(3) Continuation Claims Expense		(3) Continuation Premium Income	
(3) Insurance premiums paid to Reinsurer		(3) Claims paid by Reinsurer	

(1) = Portfolio Insurance Option; (2) = Agent Options; (3) = Insurer Options

This list is not exhaustive, but rather encompasses the accounts necessary to do the simplest accounting for insurance. Note that each product type has its own account—this is critical to assist with the management and analysis of the insurance products.

Some of the speciality transactions for an MFI's life insurance business are summarised in Table 6.4.

Each insurance product needs to have its own account so that the insurer can monitor insurance experience and track product profitability.

Table 6.4 Specialty Transactions for Life Insurance

Transactions for an MFI with Insurance Business (will be posted to a subsidiary set of books and then consolidated)

Account	Debit	Credit
1. Premiums payments (taken from loan proceeds)		
Loan Disbursement	Loan Account (A) (can either be increased to accommodate the premium or the proceeds can be reduced)	Bank (A) (payment is by check in this case)
		Unexpired Premiums (L)
2. Premiums payments (by cash)		
Payment from client	Cash (A)	Unexpired Premiums (L)
3. Payments from interest rate (this transaction would occur with the first payment from the client)		
Loan payment from client (includes premium payment)	Banks (A)	Loan Account (A)
		Interest receivable (A) The interest portion anticipated will be short by the amount of the premium.
		Unexpired Premiums (L)
4. Claims request received		
	Life Insurance Claims Expense (E)	Life Insurance claims pending (L)
5. Claims Payment		
	Life insurance Claims pending (L)	Bank (A)
		Loan account (A)
		Accrued interest receivable (A), (or a mix of these depending on the product)
6. Product related Income (Requires separate accounts by product)		
	Banks (A)	Product income type (I) (for example, Life Insurance Interest Income)
7. Product related expenses (Requires separate accounts by product and specific staff time allocations)		
	Product expense type (E) (This also includes the costs of outsourced insurance activities)	Banks (A)
8. Monthly Income allocation (MUST be calculated by computerised accrual system)		
	Unexpired Premiums (L)	Life Insurance Premium Income (I)

Premiums

As when outsourcing to an insurer, premiums can be collected in three ways. In the accounting, the difference for an MFI insurer is that, rather crediting to the liability account “Insurance Premiums Held for Payment,” it posts a credit to the liability account “Unexpired Premiums” and the money stays with the organisation. At the end of each month, the portion earned on these premiums is transferred from the liability account to the income account.

To book the premium income as it is earned, it will be necessary to have an accrual system that generates income earned from premiums at least monthly. This system is necessary because the exact earnings are required not only for accounting purposes, but are also as a critical input to the calculation of the premium rate. Without knowledge of exactly how much the MFI earned in premiums, it will be very difficult to accurately determine a price.

The transaction to record the earnings should debit the account “Unexpired Premiums” and credit the account “Life Insurance Premium Income” for each specific insurance product. This should be done on the same basis as the interest accruals for the loan portfolio (i.e., 360 days, 365 or 366 days).

Claims

For the five products presented in this manual, a claims reserve is not necessary. Claims can be treated as direct expenses. For example, a claim for a client with an **Additional Benefit** would be treated in the following manner. In this example, when the client died his loan was one payment in arrears and had a principal balance of US\$135 and interest due of US\$9. The MFI insurer also pays US\$200 for the **Additional Benefit**. Note that the claims on both the **Credit Life** and the **Additional Benefit** products are expensed to separate accounts.

VOUCHER 55-008

Journal Voucher 55-008

Account	Debit	Credit
Credit Life Claims Expense (E)	144.00	
Additional Benefit Claims Expense (E)	200.00	
Loan Account (A)		135.00
Interest Receivable (A)		9.00
Banks (A)		200.00
Total:	344.00	344.00
Claims payment on the death of Mr. FGH.		

The claim was not paid from a reserve, as are other loan losses. What is actually happening in the income statement is that the claim for the month is being offset by the income earned for the month.

As noted in Chapter 1, several types of reserves can be used in the insurance business. The recommended direct expensing method, however, is completely valid for MFIs and is easier to manage. This method keeps all transactions clearly separated to facilitate analysis and pricing activities.

Reinsurance

Some MFI insurers may obtain reinsurance, either from a primary insurer acting as a reinsurer or from formally constituted reinsurer. The previous chapter discussed the issues and benefits surrounding reinsurance as an option for MFI insurers (see section 5.4). One of the most appropriate types of reinsurance for MFIs is a **stop loss policy**, where the reinsurer takes on all risk above a certain amount in exchange for a premium paid by the MFI insurer.

As an example, HIJ-Re agrees to reinsure PQR MFI's **Additional Benefit** policy. The agreement is that once PQR has paid US\$10,000 in claims for the year, HIJ-Re will pay the additional claims. For this coverage PQR pays a reinsurance premium to HIJ-Re of five percent of the premiums paid to the MFI, payable on a monthly basis. In January, US\$700 is paid in claims and total premiums received were US\$1,200. The reinsurance transactions would be as follows²⁶:

²⁶ These transactions assume that claims are posted when paid and premiums are posted when received to the Claims and Premiums accounts, respectively.

VOUCHER 55-009

Journal Voucher 55-009

Account	Debit	Credit
Life insurance premiums paid to reinsurer (E)	60.00	
Reinsurance Premiums Payable (L)		60.00
Reinsurance Premiums Payable (L)	60.00	
Bank (A)		60.00
Total:	120.00	120.00

Premiums paid to HIJ-Re for the month of January. Total premiums = US\$1,200; reinsurance premium is 5% of total premium income (US\$1200 x .05 = US\$60).

Then in November claims are US\$900 and premiums are US\$1,400. However claims from January through October were US\$9,700. Hence the accumulated claims to date exceed US\$10,000 and reinsurance cover comes into effect. The transactions for November would be as follows:

VOUCHER 55-010

Journal Voucher 55-010

Account	Debit	Credit
Life insurance premiums paid to reinsurer (E)	70.00	
Reinsurance Premiums Payable (L)		70.00
Reinsurance Premiums Payable (L)	70.00	
Bank (A)		70.00
Claims pending from reinsurer (A)	600.00	
Reinsurance Claims (I)		600.00
Total:	740.00	740.00

Premiums paid to HIJ-Re for the month of November. Total premiums = US\$1,400, agreed premium 5%. Also claims made to HIJ-Re for PQR's Additional Benefit policy over the agreed threshold of US\$10,000.

Note that premium payments to the reinsurer continue even after the MFI begins to claim against the reinsurance. Netting these transactions is not advisable to maintain account integrity and clarity.

6.2 Financial Management

In the financial management of a microinsurance business, key issues include investments and capitalisation. These issues are critical for MFI insurers because capital plays an important role in protecting the business and the insured. The temptation for MFIs to use insurance funds to capitalise their loan portfolios is a dangerous practice that puts both businesses at risk.

Investments

An insurer generally has two streams of income. The first is from premiums, net of claims and operational expenses. The second is from investment income derived from the judicious investment of premiums.

Essentially an insurer acts like a bank. Funds are accepted as long-term liabilities, and the insurer leverages income from those funds through investments that earn interest. With such investments it is important to match the expected maturity of the assets to the projected demand for funds, i.e., to ensure adequate liquidity to meet payments on their due date. Thus, insurance investing requires a strong **asset and liability management** function, just as it is important for financial institutions offering long or medium term loans to carefully manage their liquidity position.

Frequently an insurer's strategy for profitability is to break even or make a modest profit on its insurance activities, and then make significant profits from its investments. Insurers accept limited earnings on the basic insurance business because large earnings would have a direct impact on product cost, and thus limit competitiveness. Good investment strategies help the insurer to keep prices low. With low premiums an insurer is more competitive, and then can attract more funds for investment, creating a **virtuous business circle**. Opportunities for profitable investments, however, are fairly limited for MFIs offering short-term policies. Nonetheless, MFI insurers should still invest premium surpluses and reserves, while recognising the importance of asset-liability management and minimising risk.

Insurance companies frequently place funds in relatively secure investments, such as highly rated corporate or government bonds, and they tend to limit their exposure to significant risk in equities. Depending on the country and its foreign exchange laws, it may be prudent to transfer investable funds outside the country where they can be invested in a stable currency. However, the institution must be careful with this approach since it involves both investment and foreign exchange risks—both of which require special skills to manage.

One of the primary reasons for separating the savings and loan business from the insurance business is to prevent insurance from threatening the stability of the MFI, and vice-versa. There are many reasons to be wary of the risk posed by insurance, as shown in Box 5.4 where the viability of CARD Bank was jeopardised by its insurance business.

MFI insurers will likely have limited investment options, not only because of the short duration on their policies, but also because there may be few low-risk investment options. Given the relationship between the savings and credit and the insurance businesses, it might seem reasonable to invest surplus funds in the loan portfolio—a fairly safe investment opportunity with a high return.

However, the investment of insurance funds into the loan portfolio is not an appropriate financial management strategy because it causes the risks of the two businesses to converge, and to be exacerbated due to the interrelationship of the funds.

It is not appropriate to invest insurance funds into the MFI's loan portfolio.

Strategically, losses in one business should not affect the other. The investment of insurance funds into the portfolio puts both divisions of the institution at risk. The lending business is at risk because the insurance business could require funds at short notice to pay for a surge in claims; the insurance business is vulnerable to unexpected declines in portfolio quality. More importantly, the two businesses need to be separated so that the overall organisation is properly diversified and the risk to each part is limited.

When planning investments, liquidity must be considered. Available funds should cover the insurance activities (operations and claims) for at least two months. This cushion should be sufficient for a small microinsurance business, however liquidity needs will require a special assessment on a case-by-case basis.

Capitalisation

For a regulated insurer, capitalisation is a critical means of protecting the insurance company and its policyholders. It can also be a rather significant investment for a business (see section 2.4). Typically, insurers are required to commence operations with a minimum capital investment, and then maintain on-going capital ratios. The minimum capital requirement can make entry into the insurance market prohibitive as in the case of SEWA, or uneconomical as in the case of AIG in Uganda. AIG refrained from obtaining a Life License in Uganda because it saw little chance of earning an adequate return on the US\$1 million initial capital requirement.

Anyone who wants to operate an insurance business must be registered and conduct all insurance activities within the structure of national laws. In the case of MFIs, this capital is separate from the capital for their savings and loan business, and should be registered in the insurance books. In cases where an MFI can legally manage insurance without regulation, there should be serious consideration about the level of capital required.

At a practical level, the **Credit Life** and **Credit Disability** products can generally be managed within the MFI without insurance regulation, and are adequately protected by the MFI's capital and reserves, because they are internal products that only impact the MFI. However, as more countries subject MFIs to financial regulations, it is likely that even **Credit Life** and **Credit Disability** products will come under government scrutiny.

An MFI with an insurance subsidiary providing insurance products beyond **Credit Life** and **Credit Disability** should adequately capitalise the operations.

6.3 Monitoring

With their credit and savings business, MFIs aggressively monitor financial activity, portfolio quality, efficiency, growth and risk factors such as fraud and concentration risk. Monitoring allows managers to understand their business at all times. They structure their systems, procedures and MIS so they can have management information at their fingertips. The same priority for timely and accurate information is required to manage the insurance business.

What data is needed to monitor an insurance business?

1. **Financial statements** to review the overall position and liquidity of the insurance business, including:
 - Balance sheet
 - Profit and loss statement
 - Cash flow statement
2. **Projection to actual analysis** to compare the MFI insurer's performance to its projections
3. **Statement of claims**, with details about the insured, to understand the claims structure and volume
4. **Insured data**, for each insurance product, to assess the characteristics of the insurance portfolio against the assumptions, and to identify any

significant trends. This is important because shifts in the composition of the insurance pool could dramatically alter the costs. Data includes:

- Average insured age
 - Gender breakdown
 - Business types of insured
 - Regional indicator (noting where insured are from)
 - Number of policies
 - Average outstanding and disbursed loan amounts
5. **Drop outs** from voluntary products including the insured's characteristics and the reasons for leaving.

All data should be comparative so managers can assess trends. Additionally, for efficiency reasons, reports should come directly from the MIS. Most of this data has a reasonable counterpart in the credit business, so it is likely that the information can be produced with only minor alterations to many current systems. An MFI with manual systems and large client volumes may find it difficult to monitor the insurance business adequately or efficiently.

Budgeting and Cash Flows

As with the savings and loan business, budgeting is also important for microinsurance. Budgeting helps management to project the likely levels of insurance activity—premiums, claims, sales and service operations—and then compare actual results to projections. If the budget is significantly different from the operational reality, it should be re-evaluated at mid-year. The performance appraisals of managers should be partly based on the accuracy of their projections.

Budgeting includes **cash flow projections**, which are critical for the treasury to maximize income while maintaining a reasonable level of liquidity. This “reasonable level” will differ depending on the type of insurance, but should begin conservatively at about twenty-five percent of premiums. This amount can decrease as the risk pool grows and the MFI insurer gains experience with the business.

The cash flow projections should be presented in a rolling twelve-month format. Thus, each month the projections would be reassessed based on the actual results, and a new month would be added on. As the MFI insurer builds a history of claims experience, it will better understand the risk factors and seasonality of the demand for insurance coverage and claims.

Insurance managers should recognize the requirements of asset-liability management in developing their cash flow projections. Because microinsurance products are usually for short terms, MFI insurers should not expect significant investment earnings from premiums.

Ratios

Several key ratios are used to monitor the status and progress of the life insurance business. MFI insurers should track these ratios and use them in managerial decision-making. Some of the most important ratios are detailed in Table 6.5 (following page). Although general guidelines for these ratios are provided, there is very limited empirical experience with life insurance products offered by MFIs. In the same way that the performance standards for commercial banks are not applicable to MFIs, ratio targets for formal insurers may not be entirely applicable to MFI insurers. However, the ratios themselves are helpful in tracking performance.

Key Costs to Monitor

In the insurance business, management must monitor several key costs including claims and personnel. Lack of vigilance over these costs could lead to significant problems.

Claims and Experience Monitoring

The value of claims is the primary cost to monitor. If claims are significantly greater than expected, the premium calculation may be off target, leading to potential losses. Insurers conduct a technical calculation to determine their premium rates. If one of the key assumptions of this calculation, mortality rate, is off target, the pricing will be insufficient.

Mortality rates are difficult to calculate for microfinance clients. MFIs often experience rapid growth into new areas, new client markets, and even new gender combinations. Their clients are vulnerable to serious alterations to their livelihoods, such as drought, civil disturbance or epidemics. These issues make it difficult to project mortality for this market. MFIs may have information on client deaths in the past, but the variations mentioned above limit the value of that data when considering the future. In addition, with group lending, members have incentives to restrict ill persons from their group, but the availability of life insurance may reduce their caution—the adverse selection problem—and result in higher than expected mortality.



Table 6.5 Key Ratios for Life Insurance

Type	Calculation	General Indicators and Comments
Average days to claim ("Reporting Delay")	Total number of days from death to date of claim for all claims received in a period / the number of claims received in the period	Should be as low as possible but not more than two weeks. Longer periods suggest beneficiaries do not know about the coverage, the proof of death may be too difficult to obtain, or field staff may not be following up adequately.
Average days claim to payment ("Payment Delay")	Total number of days from receipt of the claim to claim payment for all claims paid in a period / the number of claims paid in the period	Should be as low as possible but not more than two weeks. Longer periods may suggest that processing is being delayed, the insurer is delaying the claim, or the MFI is slow in submitting the claims request. Some MFIs will batch their claims. This causes significant and inappropriate delays.
Loss ratio	Claims expenses in a period net of claims recovered from reinsurer/ Premiums received net of premiums ceded to reinsurers	Thirty to 50 percent. This is variable and reflects the type of life insurance provided. The balance covers operating costs, reserves and some net profit.
Administrative cost ratio	(administrative expenses / total premiums received plus other insurance revenues)	Five to 30 percent. This ratio depends on the amount of commission provided to sales staff. It would also cover staff costs, transport and other costs directly related to the provision of insurance. An indirect cost as appropriate should also be applied to these costs. It is important that the costs be fully allocated (loaded), to reflect the full costs of the insurance business, and included in the Profit and Loss Statement.
Reserves ratio	Current Month Premiums* Average Number of months loan term / 2	Should be greater than or equal to the balance in the "unexpired life premiums" account. The denominator is two because of the assumption that the average loan will be half way through the loan period. In a fast growing MFI the denominator may be lower because of the average loan would be closer to disbursement. For Credit Life and Credit Disability only, the denominator could be three for short loan cycles.
Net profit margin	Net income / Total revenue	Net income is premiums received plus other fees and income net of reinsurance premiums, retained claims, operating and other expenses. Total revenues include premiums received, reinsurance recoveries plus other fees and income. Income and expense should be fully loaded. This calculation is the key for determining profitability of the insurance business.

An MFI with less than 2,500 clients has a limited risk pool and may experience wide fluctuations in claims. Also, with the **Additional Lives** policy, the MFI has limited information about the insured, which increases risk.

Since there are so many variables to life insurance, it may be difficult to develop adequate mortality assumptions based on the MFI's experience, especially for organisations with a limited risk pool. These limitations highlight the importance of closely monitoring the mortality rate versus projections.

Premium assumptions should be tracked on a monthly basis. For large organisations, six months of an upward deviation in mortality rates should elicit a recalculation of premiums. Twelve months of a downward mortality rate trend could also lead to a downward pricing adjustment depending on local issues such as seasonality. The credibility of the claims experience will determine the extent of the adjustment, as discussed in the following chapter.

Staff Expenses

The provision of insurance by, or through, MFIs should be relatively efficient since the organisation already has a field structure to service clients. Even though it should be efficient, the addition of insurance on top of credit and savings may not necessarily be so. Consequently, it is important to track staff costs associated with insurance delivery.

After claims, staff expenses are the largest component of insurance costs. If operations are inefficient, staff costs could be quite high. The tracking of staff costs will require detailed allocations of staff and management time. Depending on the complexity and volume of MFI insurance activities there may or may not be staff directly and fully attached to the insurance business. However, many staff are likely to conduct work for both the MFI and insurance entities, which will require inter-company transactions to properly allocate the costs. This activity is important so that the MFI and the insurer have a full understanding of the costs of providing insurance.

Unit Costing

All MFIs should utilise a unit costing system to monitor and analyse their business. Banks, insurers, and most other businesses use unit costing to understand where their earnings (and losses) are generated. This analysis helps managers to focus on the operations that need assistance to improve their productivity. Financial institutions will often assess operations by products and by branches.²⁷

²⁷ MicroSave-Africa offers several documents on costing and cost allocation for MFIs at their web site, www.microsave-africa.com.

Regardless of the method of insurance provision—direct provider or partnerships—it is important for the MFI to understand the total insurance costs. As a direct insurer, premiums must cover claims and all operational costs. As an agent, commissions must cover operational costs.

MFI should include the full cost of insurance operations in their costing exercise. Besides associated staff costs, expenses include a portion of transport costs directly relevant to insurance provision, all supplies, contractual and marketing documents, as well as depreciation on furniture, fixtures, and equipment used in relation to the insurance business. MFIs should also apply an indirect cost to this business. It might be most reasonable to apply the institutional overhead rate to the direct costs of the insurance business.

Applying all these costs, and reviewing them against premiums received (or net premiums if a reinsurer is used) will help an MFI to measure the profitability of the business. If the costing analysis shows a net loss, this does not necessarily mean that the activity should be abandoned—prices could be raised, costs could be lowered or the product could be adjusted. Furthermore, the institution may derive some value at least from a **Credit Life** product since the MFI would have to deal with losses due to death in some way.

Management Information Systems

The management information system requirements for microinsurance will depend largely on the outsourcing model. A computerised system is not necessary for an MFI that has portfolio insurance. MFIs that act as agents also do not need high-tech MIS solutions. When outsourcing the business, the insurance partner will track detailed data. The MFI should maintain a log of transactions with the insurer, which could include basic information such as cause of death, business activity, or other data that the MFI might require for its research. The MFI should track the date of death versus receipt of the claim, and receipt of claim to the date of claim payment, which will allow the MFI to calculate two key ratios.

Any MFI offering insurance itself should have a computerised system capable of managing insurance data. A robust database is needed to track the characteristics of the insurance portfolio and minimise fraud and other risks. A database for an MFI Insurer should have the ability to:

- Report and sort insured details including age, sex, date of cover commencement, original term of cover
- Track insured by disbursed amounts and outstanding balances

- Maintain separate but linked controls over each insurance product so, for example, a voluntary **Additional Benefit** policy can only be issued to an individual who already has a **Credit Life**
- Produce accounting documents for the insurance business and be able to consolidate them with the MFI's other financials
- Identify duplicate client entries
- Maintain a list of related insured
- Maintain a list of beneficiaries
- Amortise premiums paid over the life of the coverage
- Track claims' details such as at what point during the loan term did the insured die, date of death, date of claim, date of claim payment, cause of death, how much they owed, and loan officer responsible
- Track reinsurance claims and premiums
- Analyse expenses allocated to insurance business

Whether as an insurer or an agent, monitoring the insurance business is a critical activity. Without adequate monitoring, an agent will be at a loss in negotiations with the insurer partner. As an insurer, inadequate monitoring can lead to inappropriate pricing, exacerbated risk, and potentially a loss to the business.

KEY TERMS and CONCEPTS



- | | |
|--|--|
| ✓ <i>Asset and liability management</i> | ✓ <i>Projection to actual analysis</i> |
| ✓ <i>Budgeting</i> | ✓ <i>Reporting delay</i> |
| ✓ <i>Capitalisation</i> | ✓ <i>Seasonality</i> |
| ✓ <i>Cash flow projections</i> | ✓ <i>Statement of claims</i> |
| ✓ <i>Financial statements</i> | ✓ <i>Stop loss reinsurance</i> |
| ✓ <i>Insurance accounting transactions</i> | ✓ <i>Trend analysis</i> |
| ✓ <i>Investments</i> | ✓ <i>Unit costing</i> |
| ✓ <i>Payment delay</i> | ✓ <i>MIS</i> |
| ✓ <i>Performance ratios</i> | |



Further Reading on Managerial Control

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PRICING

The purpose of this chapter is to:

- Explain how to do basic experience rating for existing insurance products
- Describe adjustments to basic experience rating that are required to accommodate changes or trends
- Introduce techniques for pricing new products
- Encourage MFIs to rely on professional actuarial expertise wherever possible

Pricing an insurance product is one of the most difficult and most important aspects of the insurance business. If premiums are set too low, it can quickly decapitalise an insurance company; or if pricing is too conservative, the insurer will not be competitive. If MFI insurers do not price their products accurately, they may be charging too much or too little without realising it.

This chapter introduces technical methods for pricing simple insurance products. Aggregate or group pricing methods are the most practical for MFIs. The chapter begins by using **Credit Life** and **Additional Benefit** examples to demonstrate basic experience rating. Without actuarial resources, this is one of the few ways that MFIs can price insurance products. The second section covers more advanced issues in experience rating, such as taking into account trends and changes in subsets of the insurance portfolio. The third section introduces pricing for completely new products, including the use of mortality tables, but recommends the involvement of additional expertise. The final section provides a few words on pricing of the **Credit Disability**, **Additional Lives** and **Continuation** products.

7.1 Experience Rating

Experience rating is a pricing method for existing insurance products in which an insurer looks at its claims history as a means to predict the future. This method requires the MFI to have an existing premium rate with a sound theoretical basis and a record of claims.



The existing premium is the point of departure. As discussed in Chapter 1, the premium rate includes several elements: a) the risk premium, which is the expected claims for the period, plus b) operating expenses and c) contribution to surplus or profit, less d) investment income. Ideally the premium should be based along these lines, but in practice many MFIs have set premiums somewhat arbitrarily, as shown in Box 7.1.

Experience rating involves a comparison of the *actual* claims rate with the risk premium (the *expected* claims rate). This analysis often results in an adjustment to the risk premium for the next period by combining the actual and expected rates based on the **credibility** assigned to the claims history. The more substantial the claims history, the more credibility it has.

Setting Premiums In Burkina Faso

7.1 BOX

Setting Premiums In Burkina Faso

In a recent study of MFIs in Burkina Faso, it appears to be a striking coincidence that each of the four MFIs interviewed charged 1 percent of the loan amount as premium for credit life insurance. For the Caisse Populaire de Cissin, the premium rate was determined by the Fédération, and it remains unclear on what basis this level was chosen. For MUFEDE and Coopec-Galore, the 1 percent was chosen arbitrarily, being “a nice small number”. For PRODIA, the 1 percent seemed reasonable in light of what the commercial insurers usually charge. Thus, possibly with the exception of the Caisses Populaires, MFIs in Burkina Faso that practice credit life insurance do not seem to engage in a conscious actuarial exercise to determine the appropriate premium, but rather select a figure that seems subjectively or objectively reasonable, with the expectation of adjusting it over time if necessary.

Adapted from Aliber and Ido (2002).

Experience rating involves the following eight steps:

- Step 1. **Information:** Decide which product to evaluate, determine the period of investigation, and gather all relevant information.
- Step 2. **Portfolio:** Tabulate the portfolio details during the period.
- Step 3. **Premiums:** Determine the risk premium rate(s) allocated to the same period.

- Step 4. **Claims:** Draw up a table of the claims experience over the last year (or other period)
- Step 5. **Past Changes:** Consider if there were any major changes in the benefit, the market or any other relevant factor in the period. Make the necessary adjustments.
- Step 6. **Compare:** Compare actual to expected risk rates.
- Step 7. **Credibility:** Determine the credibility of the experience and the theoretical rate.
- Step 8. **Future Changes:** Consider the future period for which cover is required, and any factors that differ from the past period to the future period. Adjust the expected risk rates for these factors. Also consider practical and marketing considerations.

MFIs should involve actuaries in this process wherever possible, but organisations will still need to collect relevant information for insurance analysts as described in this process. The rest of this section follows these eight steps to describe an experience rating situation in a fairly stable environment where there are no trends or changes in claims patterns; Section 7.2 describes a more complex experience rating scenario.

Step 1 – Define Investigation and Gather Information

For each insurance product, define or collect the following information:

1. **Period of investigation:** The period of investigation should be as long as possible. If no prior investigation has been done, then all available data should be used. If a prior experience investigation has been done, the new investigation should examine the period since the last investigation. Any previous investigations should be on hand. The total period of investigation should be broken down into convenient sub-periods such as quarters.
2. **Business events:** Identify any significant event that might affect the membership or claims experience. Did the MFI merge with another MFI and take on their members? Did a large number of members leave for some reason?
3. **Insurance product:** Take note of significant changes affecting the insurance product, including the benefit structure, the premium rate, underwriting or screening practices or the marketing of the benefit.
4. **Number of clients:** Determine the number of policyholders at the start and end points of the investigation period and the sub-periods.



5. **Premiums:** Determine what premium rates were charged in the period under consideration for the given benefit. Establish how the premium rate is expressed: is it per policy, per unit of benefit or per unit of disbursed loan? To what period does the rate apply? Is the premium monthly or annually, or is the rate per loan cycle?

Gather data on premiums received in the period investigation. If possible, the MFI should establish what allowances are contained in these premiums for expenses, cost of capital and so on, and remove these costs (the analysis of expenses is covered in Chapter 6). The objective is to determine the pure risk premium for the period i.e. the portion of premium that is used to pay claims.

6. **Claims:** Determine what claims occurred during the period and sub-periods, and categorise them by the period in which the death occurred rather than when the claims were paid. Suppose an individual was covered for **Credit Life** over a loan cycle from January to April; the person died in April and the claim was paid in early June. Even though the expense occurred in June, the claim relates to the period of cover January to April. It must be recorded there, rather than in June, otherwise the claims experience is distorted. This ensures that corresponding premiums and claims are compared.
7. **Administration:** Was there any serious change in administration systems that might affect the payment of claims? Was there a serious backlog at any point? Was there a substantial change in practice or systems regarding underlying loans?
8. **Other risks:** Finally, look for other events like natural disasters, wars and short epidemics in the period of investigation. Also take note of longer term sustained risk factors such as the progression of HIV/AIDS. Trends can invalidate the basic experience rating mechanism and require separate consideration.

Step 2 – Tabulate the Insurance Portfolio

Risk premiums involve three basic components: a) the probability of claim, b) the benefit payable on the claim event and c) a denominator which converts the premium into a rate. The formula is:

$$\text{Risk premium rate} = \frac{\text{Probability of claim} \times \text{Insured benefit}}{\text{Convenient denominator}}$$

The numerator—the probability of the claim times the insured benefit—is equal to the total expected claims for the period. The denominator helps to quote the premium as a rate to clients.

An analysis of experience begins by tabulating the insured benefits during the period and the **denominator of the premium rate**. For the insurance products in this manual, the most convenient measures are:

Product	Denominator of Premium Rate	Measure of Insured Benefit
Credit Life	Disbursed loan amount	Outstanding loan balance plus interest
Credit Disability	Disbursed loan amount	Outstanding loan balance plus interest
Additional Benefit	Individual insured benefit	Individual insured benefit
Additional Lives	Individual insured benefit	150% of primary insured benefit
Continuation	Individual insured benefit	Individual insured benefit

For the **Additional Benefit** and the **Continuation** policies, the insured benefit is the amount stipulated in the contract; for **Additional Lives**, the insured benefit is 150 percent of the borrower’s benefit (50 percent for one adult plus 25 percent for four children).

For **Credit Life** and **Credit Disability**, however, the insured amount is a little tricky to calculate because it depends on when during the loan term the client dies and how the MFI calculates the forgone interest, which is the income that the organisation would have earned if the loan was repaid according to the repayment schedule. Each MFI will have to develop its own method for estimating the insured benefit for these outstanding balance products based on its loan pricing method (i.e., flat or declining balance) and its repayment schedule (e.g., equal regular payments, balloon payment at the end of the term of principle and interest, regular interest payments with principle payment at the end of the term, etc.) and the length of the loan term.

The denominator is needed to present the premium as a rate. For the **Additional Benefit**, **Additional Lives** and **Continuation** policies, the denominator is the same as the benefit. For example, an MFI might offer two benefit options, allowing clients to choose if they want \$500 or \$1000 worth of cover, but for both options the premium rate is 1.5 percent of the benefit. In other words, the premium would cost either \$7.50 or \$15.00. For **Credit Life** and **Credit Disability**, the premium is expressed as a percentage of the disbursed loan amount.

A spreadsheet is needed to track the insurance portfolio information as well as the rest of the data required for experience rating. Table 7.1 considers MicroBank's two products, compulsory **Credit Life** and a voluntary **Additional Benefit** policy. The "Portfolio" section of the spreadsheet needs to show the following:

- **Number of policies at the start and end:** For example, MicroBank had 1000 active **Credit Life** policies at the start of the Jan-Mar quarter, which is the number of active policies on 1 January 1999. The number of policies at the end of the period is the same as the number of policies at the start of the next quarter.
- **Number of policies in period:** Since experience rating compares performance over a period of time, and between sub-periods of time, the number of policies should be the average for the period, i.e., the number of policies active at the start date of a period plus the number of policies at the end of a period divided by two.²⁸
- **Start and end measures of the premium rate denominator:** For **Credit Life** and **Credit Disability**, the measure is the total loans disbursed (not outstanding) for all of the policies active at the start of the quarter. For **Additional Benefit**, **Additional Lives** and **Continuation** cover, the measure is the total insured benefits for all policies active at the start of the quarter.²⁹
- **Estimated premium rate denominator for the period:** The start and end measures of the premium rate denominator are averaged to estimate the actual denominator throughout the period.
- **Start and end measures of the insured benefits:** For credit-related benefits, the measure of insured benefits is the sum of the outstanding balances plus forgone interest. For **Additional Benefit**, the insured benefits are simply the total insured benefits under all policies active at the start of the quarter.
- **Estimated insured benefits for the period:** Average the start and end measures of the insured benefits to estimate the actual benefit insured during the period.

²⁸ This method of averaging assumes that the policies commenced and exited uniformly during the period. In the absence of more sophisticated techniques, this will generally provide a satisfactory measure unless there are very rapid changes in the portfolio during the period.

²⁹ Although not strictly required for the **Additional Benefit**, it is very useful to tabulate the disbursed underlying loans corresponding to these policies to see if the average disbursed loan for clients purchasing voluntary benefits is any different to that for clients not exercising that option.

Table 7.1 MicroBank’s Insurance Portfolio Details, 1999

	Formula	Q1	Q2	Q3	Q4	Q1'00	Total	
Compulsory Credit Life								
Po1 ^{cl}	Number of Policies (Start)	1,000	1,150	1,163	1,175	1,095	-	
Po2 ^{cl}	Total Disbursed Loans (Start) - US\$	200,000	253,000	259,349	258,500	262,800	-	
Po3 ^{cl}	Total Loans Outstanding (Start) - US\$	95,000	126,500	139,560	129,250	120,450	-	
Po4 ^{cl}	Number of Policies during Period*	1,075	1,157	1,169	1,135	-	4,536	
Po5 ^{cl}	Total Disbursed Loans during Period* - US\$	226,500	256,175	258,925	260,650	-	1,002,249	
Po6 ^{cl}	Total Loans Outstanding during Period* - US\$	110,750	133,030	134,405	124,850	-	503,035	
Po7 ^{cl}	Average Disbursed Loan - US\$	Po5 ^{cl} / Po4 ^{cl}	211	222	221	230	-	221
Po8 ^{cl}	Average Loan Outstanding - US\$	Po6 ^{cl} / Po4 ^{cl}	103	115	115	110	-	111
Voluntary Additional Benefit								
Po1 ^{ab}	Number of Policies (Start)	300	310	325	350	360	-	
Po2 ^{ab}	Total Insured Benefit (Start) - US\$	60,000	62,000	65,000	70,000	72,000	-	
Po3 ^{ab}	Number of Policies during Period*	305	318	338	355	-	1,315	
Po4 ^{ab}	Total Insured Benefit during Period* - US\$	61,000	63,500	67,500	71,000	-	263,000	
Po5 ^{ab}	Average Insured Benefit - US\$	Po4 ^{ab} / Po3 ^{ab}	200	200	200	200	-	200
Po6 ^{ab}	Underlying Disbursed Loans (Start) - US\$	87,000	93,000	96,525	103,250	102,000	-	
Po7 ^{ab}	Underlying Disbursed Loans in Period* - US\$	90,000	94,763	98,888	102,625	-	387,275	
Po8 ^{ab}	Average Underlying Disbursed Loans - US\$	Po7 ^{ab} / Po3 ^{ab}	300	306	307	293	-	295
Po9 ^{ab}	Take up Rate - %	Po3 ^{ab} / Po4 ^{cl}	28	27	29	31	-	29

* Averages of start end figures



From this data, the following additional figures are calculated to check for trends in the portfolio.

- **Average insurance portfolio per policy:** Divide the loans disbursed (**Credit Life**) or the insured benefit (**Additional Benefit**) by the corresponding number of the policies.
- **Take up rate (for voluntary products):** The **take up rate** is the percentage of policies that are eligible for the voluntary benefit, which actually purchase it. Divide the number of voluntary policies by the total number of loans qualifying for eligibility.

Gathering the data for the portfolio spreadsheet may require obtaining extracts from the MFI's databases or other information systems. It is important to check that the data are sensible. In particular, the number of policies can be compared with the number of policies reported in the financial accounts. If figures like average disbursed loans are produced independently for financial reporting, then the numbers obtained in this exercise can be verified with those numbers.

Further calculations should only be made when a high degree of confidence in the data is present.

Step 3 – Record the Premiums

Next, the premium rates are established and recorded. This exercise requires the following:

- **The premium rate charged:** Record the premium rate charged during the period under review. If the premium rate changed during the period, time periods with different premium rates should be shown separately.
- **Total premiums accrued:** The premiums accrued to the period under review are shown next. As discussed in the financial management section, premiums paid in advance at the commencement of a policy must be allocated across the period of cover. The accrued premiums are the accruing premiums for months falling within the period of investigation.
- **Expenses:** To obtain the amount of premium specifically allocated towards paying claims in this period (i.e. the portion of risk premium), administration and other expenses must be deducted. These expenses are conveniently expressed as a percentage of the total premium.
- **Risk premiums received:** Pure risk premiums are obtained by deducting the allowances for expenses from the premiums accrued in the corresponding periods.

Table 7.2 MicroBank’s Premium Data, 1999

	Formula	Q1	Q2	Q3	Q4	Total	
Compulsory Credit Life							
Pr1 ^{cl}	Premium Rate (% Disbursed Loan per 4 Month Cycle)	1.00	1.00	1.00	1.00	1.00	
Pr2 ^{cl}	Total Premiums Accruing in Quarter - US\$	$Pr1^{cl} \times Po5^{cl} \times 3/4$	1,699	1,921	1,942	1,955	7,517
Pr3 ^{cl}	Premium Allocated for Expenses - US\$	$Pr2^{cl} \times Pr5^{cl}$	119	134	136	137	526
Pr4 ^{cl}	Other Deductions - US\$	$Pr2^{cl} \times Pr6^{cl}$	170	192	194	195	752
Pr5 ^{cl}	Expense Rate (Expenses / Premiums) - %	7	7	7	7	7	
Pr6 ^{cl}	Other Deductions / Premiums - %	10	10	10	10	10	
Pr7 ^{cl}	Per Policy Deductions & Expenses - US\$	$(Pr3^{cl} + Pr4^{cl}) / Po4^{cl}$	0.27	0.28	0.28	0.29	0.28
Pr8 ^{cl}	Risk Premiums After Other Allocations - US\$	$Pr2^{cl} - Pr3^{cl} - Pr4^{cl}$	1,410	1,595	1,612	1,623	6,239
Pr9 ^{cl}	Effective Risk Premium Rate per Quarter - %	$Pr8^{cl} / Po5^{cl}$	0.62	0.62	0.62	0.62	0.62
Voluntary Additional Benefit							
Pr1 ^{ab}	Premium Rate (% Insured Benefit per 4 Month Cycle)	1.20	1.20	1.20	1.20	1.20	
Pr2 ^{ab}	Total Premiums Accruing in Period - US\$	$Pr1^{ab} \times Po4^{ab} \times 3/4$	549	572	608	639	2,367
Pr3 ^{ab}	Expenses Paid - US\$	$Pr2^{ab} \times Pr5^{ab}$	82	86	91	96	355
Pr4 ^{ab}	Other Deductions - US\$	$Pr2^{ab} \times Pr6^{ab}$	66	69	73	77	284
Pr5 ^{ab}	Expense Rate (Expenses / Premiums) - %	15	15	15	15	15	
Pr6 ^{ab}	Other Deductions / Premiums - %	12	12	12	12	12	
Pr7 ^{ab}	Per Policy Deductions & Expenses - US\$	$(Pr3^{ab} + Pr4^{ab}) / Po3^{ab}$	0.49	0.49	0.49	0.49	0.49
Pr8 ^{ab}	Risk Premiums After Other Allocations - US\$	$Pr2^{ab} - Pr3^{ab} - Pr4^{ab}$	401	417	443	466	1,728
Pr9 ^{ab}	Effective Risk Premium Rate per Quarter - %	$Pr8^{ab} / Po4^{ab}$	0.66	0.66	0.66	0.66	0.66



The MicroBank example is for a four-month loan period and premium rates are quoted for this term. The **accruing premium** is the portion of the premiums received that are allocated to the three months within the quarter. Consequently, the accrued premium in the quarter should be around $\frac{3}{4}$ of the total premium paid.

Step 4 – Tabulate the Claims Experience

Finally, the claims experience itself is recorded. It is essential to compare **corresponding premiums and claims**, i.e., that claims arising from a period of cover are compared to the premiums that were received for that same period. The data required are the number of claims, the total claims paid and the average claim during the period. From this information, two ratios are calculated:

- **Claims ratio:** Claims as a percentage of the allocated risk premiums.
- **Claims rates:** Claims divided by the insurance portfolio (total disbursed loans for **Credit Life**, and total insured benefits for **Additional Benefit**).

Table 7.3 MicroBank’s Claims Data, 1999

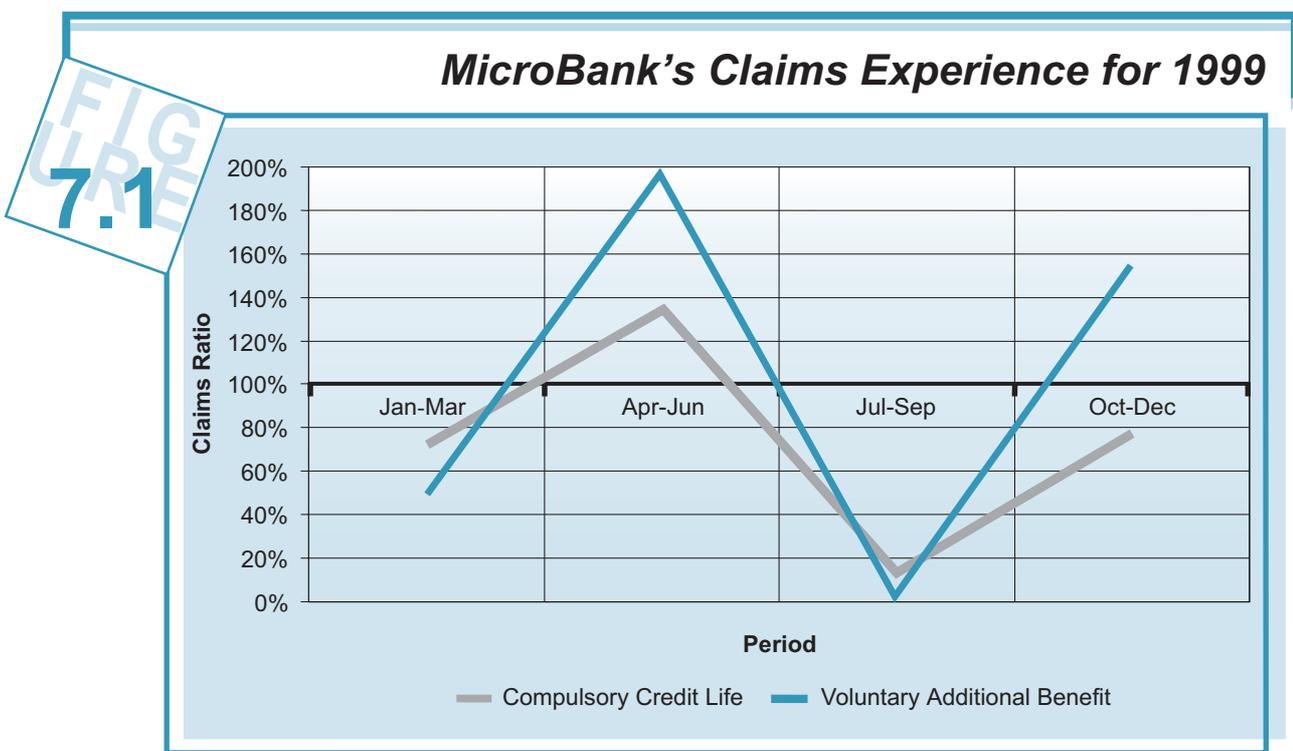
	Formula	Q1	Q2	Q3	Q4	Total	
Compulsory Credit Life							
C1 ^{cl}	Number of claims incurred	6	12	1	9	28	
C2 ^{cl}	Amount of claims incurred - US\$	1,020	2,160	150	1,260	4,590	
C3 ^{cl}	Average claim incurred - US\$	$C2^{cl} / C1^{cl}$	170	180	150	140	164
C4 ^{cl}	Claims Rate per Quarter - %	$C2^{cl} / Po5^{cl}$	0.45	0.84	0.06	0.48	0.46
C5 ^{cl}	Claims Ratio - %	$C2^{cl} / Pr8^{cl}$	72	135	9	78	74
Voluntary Additional Benefit							
C1 ^{ab}	Number of claims incurred	1	4	-	3	8	
C2 ^{ab}	Amount of claims incurred - US\$	200	840	-	720	1,760	
C3 ^{ab}	Average claim incurred - US\$	$C2^{ab} / C1^{ab}$	200	210	-	240	220
C4 ^{ab}	Claims Rate per Quarter - %	$C2^{ab} / Po4^{ab}$	0.33	1.32	0.00	1.01	0.67
C5 ^{ab}	Claims Ratio - %	$C2^{ab} / Pr8^{ab}$	50	201	0	154	102

Note that the claims ratio is also equal to the claims rate divided by the risk premium rate. These ratios are equivalent since the claims rate and premium rate have the same denominator (the total disbursed loans or total insured benefits), which cancels out when calculating the ratio to leave claims amounts on premium amounts.

Step 5 – Compare the Actual and Expected Claim Rates

Figure 7.1 shows MicroBank’s claims ratio over the year. Key features of the experience are that:

- The **Credit Life** claims ratio is mostly beneath 100 percent; for the **Additional Benefit** product the ratio goes above 100 percent. Claims ratios higher than 100 percent indicate losses.
- MicroBank’s claims experience is volatile, which is quite reasonable for a small portfolio.
- The experience of the voluntary **Additional Benefit** is more volatile than **Credit Life** benefit, but possibly not significantly so. This may be due to the low take up rate and smaller portfolio.





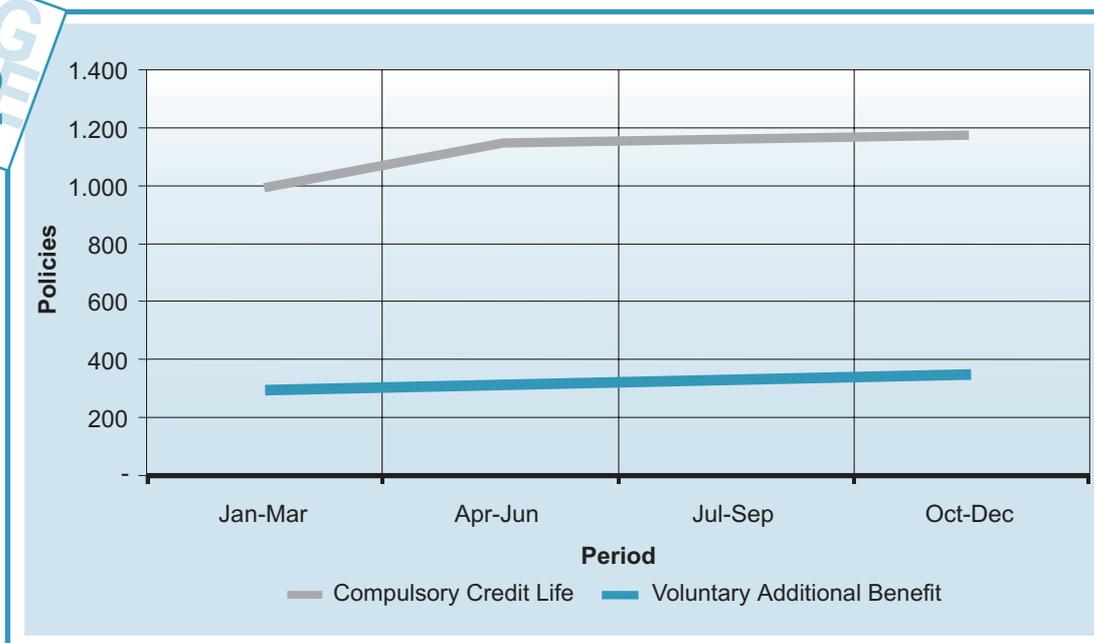
Step 6 – Consider Changes to Relevant Factors

At this stage it is necessary to check the benefits, market conditions and other factors for clues about the shape of the claims ratios. The analysis should ensure that similar benefits and circumstances are compared throughout, and then determine the causes of significant trends or alterations in the claims curves.

Figure 7.2 shows that MicroBank had a stable number of policyholders for both types of cover during 1999, so that the variable claims ratio cannot be attributed to a fluctuating client base. In 1999, assume that there were no changes to benefits, the client market or any other relevant factor. Until the credibility of the data is established, however, it is not possible to say how much weight should be given to these ratios.

MicroBank's Numbers of Policies 1999

FIGURE
7.2



Step 7 – Credibility and the New Rate

While there are several approaches to determining the credibility of the experience, this manual presents a simplified and practical method.

A weighted average of the *actual* claims rate and the *expected* claims rate (or current premium rate) is used to calculate a new estimated rate. The weighting is based on the **credibility factor**, denoted Z , which is calculated as:

$$Z = \sqrt{\text{number of life-years in the experience} / 25000}$$

The number of **policy-years** is determined by adding up the average number of policies during each sub-period of the investigation, and multiplying them by the length of the sub-period in years (i.e., three months equals ¼ of a year).

When there are 25000 or more policy-years in the experience, then $Z = 1$ and the experience is assigned **full credibility**, which is assumed to be sufficient for setting the rates. Z never exceeds one. If there are less than 25000 policy-years in the experience, then the experience is only partially credible. If the number of policies is very low, then Z is very low, and the experience is given low weighting.

The estimated premium rate for the period is calculated as:

$$\text{Estimated premium rate} = Z \times \text{Actual claims rate} + (1-Z) \times \text{Risk premium rate}$$

The risk premium rate in this formula is the previous claims rate estimate *before* taking account of any experience rating. Box 7.2 (following page) demonstrates the effect that many life years can have in establishing a new risk premium rate.

In the MicroBank example, in 1999 there are 4536 “policy-quarters” for the **Credit Life** cover, this being the sum of the average number of policies active during the four quarters. The number of policy-years is therefore $4536 \times \frac{1}{4}$ or 1134 policy-years, since each policy contributes one quarter of a policy-year. The 1999 credibility factor, ${}^{CL}Z_{1999}$ (CL denoting **Credit Life**) shows that the experience is 21 percent credible.

$${}^{CL}Z_{1999} = \sqrt{1134 / 25000} = 21\%$$

For **Credit Life**, MicroBank’s claims rate for 1999 was 0.46 percent per quarter. The existing risk premium rate (after deducting expense allocations from the total premium received) was 0.62 percent per quarter of cover in 1999. The **Credit Life** credibility risk premium rate based on the 1999 data per quarter of cover, denoted ${}^{CL}CRP_{1999}$, is then:

$$\begin{aligned} {}^{CL}CRP_{1999} &= 21\% \times 0.46\% + (1 - 21\%) \times 0.62\% \\ &= 0.59\% \text{ of disbursed loans per quarter of cover} \end{aligned}$$



The Effect of Credibility on Experience Rating

7.2 BOX

The Effect of Credibility on Experience Rating

Consider three schemes A, B and C with 100, 4000 and 20000 members respectively. Suppose the estimated risk premium rate for all of them is 5 percent, without any further information. During one year (with constant membership) the actual claims rates are 10 percent on all three schemes. Since all of the other variables are constant, it is easy to see what an important effect the number of members has on the new credibility risk premiums.

The credibility factor for Scheme A is denoted as AZ , and likewise for the other schemes. At the end of the year,

$${}^AZ = \sqrt{100/25000} = 6.3\%$$

$${}^BZ = \sqrt{4000/25000} = 40.0\%$$

$${}^CZ = \sqrt{20000/25000} = 89.4\%$$

The new credibility risk premiums, denoted ACRP for scheme A, and similarly for the other schemes are therefore:

$${}^ACRP = {}^AZ \times 10\% + (1 - {}^AZ) \times 5\% = 5.32\%$$

$${}^BCRP = {}^BZ \times 10\% + (1 - {}^BZ) \times 5\% = 7.00\%$$

$${}^CCRP = {}^CZ \times 10\% + (1 - {}^CZ) \times 5\% = 9.47\%$$

Explanation: The experience for the larger scheme is more statistically credible, and more likely to be indicative of the real underlying claims rate. The experience of the small scheme is subject to random variation and very little can be reliably inferred from the claims rate.

For the **Additional Benefit** (AB) cover, the calculations proceed as follows:

$$\text{Credibility factor} = {}^{AB}Z_{1999} = \sqrt{(1.315 \times \frac{1}{4}) \div 25000} = 11\%$$

In 1999 MicroBank charged an effective risk premium of 0.66% per quarter of **Additional Benefit** cover, and the claims rate was 0.67% per quarter of cover. The 1999 **Additional Benefit** credibility risk premium rate, denoted ${}^{AB}CRP_{1999}$ is then:

$$\begin{aligned} {}^{\text{AB}}\text{CRP}_{1999} &= 11\% \times 0.67\% + (1 - 11\%) \times 0.66\% \\ &= 0.66\% \text{ of insured benefits per quarter of cover} \end{aligned}$$

Step 8 – Adjustments for the Future

The investigation has now yielded new expected claims rates for a three-month period under the existing conditions. Allowance must now be made for changes to benefits, policy conditions, expense patterns and the occurrence of the insured event. For this example, assume that no further adjustments are required for the future (integrating these adjustments is considered in the next section).

In an exercise known as **loading**, rates for expenses, profit and other deductions must now be added to the risk premium rates to obtain a chargeable premium rate. These rates are usually expressed as a percentage of the total, final premium, rather than percentages of the risk premium. Hence the calculation is accomplished by dividing by one minus the required addition rather than by multiplying by one plus the required addition. If expense allowances were not expected to change, the new premium rate for **Credit Life** would be:

$$0.59\% \div (1 - 7\% - 10\%) = 0.71\% \text{ of disbursed loans per quarter}$$

For the **Additional Benefit**, the percentages are slightly higher:

$$0.66\% \div (1 - 15\% - 12\%) = 0.90\% \text{ of insured benefits per quarter}$$

The rates then must be increased to obtain chargeable rates per loan term (four months) rather than just for the three months of the quarter. The above rates are therefore multiplied by 4/3:

$$\begin{aligned} \text{New premium for } \mathbf{\text{Credit Life}} &= 0.94\% \text{ of the disbursed loan per loan term} \\ \text{New premium for } \mathbf{\text{Additional Benefit}} &= 1.20\% \text{ of the sum assured per loan term} \end{aligned}$$

Based on this experience, MicroBank could reduce the premium for **Credit Life** from 1.0 percent of the disbursed loan to 0.94 percent, while the **Additional Benefit** premium would stay the same.



MFIs should not discount premium rates so that the organisations' loans are more competitive. Premiums rates must be set so that insurance products are viable.

When making adjustments to premiums, the MFI must also consider practical and market considerations. If MicroBank does not face competition, for example, then a rate reduction might not be required even if indicated by the experience investigation. Far more likely, however, is that market pressure especially on the credit side, will place pressure on rates. Care must be taken not to unintentionally set rates that are not viable from the insurance perspective to be competitive on the credit side. The final rates must be consistent with the MFI's appetite for risk, the risk profile of its current and potential clients, and its market.

Multiple Years' Experience

Insurance premiums are generally small compared to loan repayments. This gives MFIs the flexibility to set premium rates conservatively and cautiously (at least at first) while they gather new information and experience.

If the MFI has more than one year's worth of experience, it can be aggregated. The quarterly analysis shown above is still useful to check for trends if there is sufficient volume of data. By pooling the exposure, premiums and claims for eight quarters or more, the number of life-years increases, the credibility increases, and more weight is given to the claims experience in setting future premiums. Should the number of life-years exceed 25000, then Z is set to 1, and the claims experience is fully credible.

The aggregating experience rating approach is valid as long as the underlying claims rates are unchanging. If there are long-term trends in the underlying claims rates, or changes to benefit or policy design then adjustments are required, as described in the following section.

KEY TERMS and CONCEPTS



- ✓ *Accruing premium*
- ✓ *Claims rate*
- ✓ *Claims ratio*
- ✓ *Corresponding premiums and claims*
- ✓ *Credibility*
- ✓ *Experience rating*
- ✓ *Full and partial credibility*
- ✓ *Loading*
- ✓ *Period of investigation*
- ✓ *Policy-years*
- ✓ *Premium rate denominator*
- ✓ *Risk premium*
- ✓ *Take up rate*

7.2 Trends and Changes within the Investigation Period

This section goes through the same experience rating process as Section 7.1, using the same **Credit Life** and **Additional Benefit** products, but now with an additional year of data. During 2000 various changes occurred to MicroBank and its operating environment that now need to be factored into the analysis.

Step 1 – Information Gathering

1. **Period of investigation:** The year 2000 will be considered and results will be compared with 1999.
2. **Business events:** During the year, a competing MFI was forced to close after losing too much money—possibly on its poorly priced insurance products. MicroBank actively targeted the clients of the defunct MFI. Furthermore, a decision was taken after the start of the year (once premium levels had been set) to market the voluntary product aggressively, which significantly increased expenses in the first two quarters.
3. **Insurance products:** Benefit designs were unchanged from 1999 to 2000.
4. **Number of clients:** The number of clients changed dramatically during the year, increasing 49 percent for **Credit Life** and 230 percent for the **Additional Benefit** from 1999 to 2000. The take up rate on the voluntary product increased from 29 to 64 percent.
5. **Premiums:** During 2000, MicroBank adjusted the **Credit Life** premiums based on the 1999 experience rating, which represented a slight discount. The volume of business measured by premium income increased substantially during 2000. The growth in the business was sharpest for **Additional Benefit**.
6. **Claims:** The number of claims also increased sharply throughout 2000. In fact, claims paid increased by 73 percent for **Credit Life** and 445 percent for the voluntary product (although from a very low base).
7. **Administration:** There was no significant change in administration systems—claims continue to be paid promptly, despite the large increase in volume.
8. **Other risks:** There were no other known events that affected the experience.



Step 2 – Changes to the Portfolio

The tabulated portfolio is shown in Table 7.4 on the following pages along with graphs on the claims experience (Figure 7.3) and the number of policies (Figure 7.4). The significant rise in the number of the policies should be an immediate alert to the fact that something significant has happened. Who are

Table 7.4 MicroBank Insurance Experience, 1999-2000

	Q1	Q2	Q3	Q4	1999 Total
Compulsory Credit Life					
Number of Policies (Start)	1,000	1,150	1,163	1,175	-
Total Disbursed Loans (Start) - US\$	200,000	253,000	259,349	258,500	-
Total Loans Outstanding (Start) - US\$	95,000	126,500	139,560	129,250	-
Number of Policies during Period*	1,075	1,157	1,169	1,135	4,536
Total Disbursed Loans during Period* - US\$	226,500	256,175	258,925	260,650	1,002,249
Total Loans Outstanding during Period* - US\$	110,750	133,030	134,405	124,850	503,035
Average Disbursed Loan - US\$	211	222	221	230	221
Average Loan Outstanding - US\$	103	115	115	110	111
Voluntary Additional Benefit					
Number of Policies (Start)	300	310	325	350	-
Total Insured Benefit (Start) - US\$	60,000	62,000	65,000	70,000	-
Number of Policies during Period*	305	318	338	355	1,315
Total Insured Benefit during Period* - US\$	61,000	63,500	67,500	71,000	263,000
Average Insured Benefit - US\$	200	200	200	200	200
Underlying Disbursed Loans (Start) - US\$	87,000	93,000	96,525	103,250	-
Underlying Disbursed Loans in Period* - US\$	90,000	94,763	99,888	102,625	387,275
Average Underlying Disbursed Loans - US\$	300	306	307	293	295
Take up Rate - %	28	27	29	31	29

Portfolio Details

all these new members? Do they have the same risk profile as the old clients? The average disbursed and outstanding loan amounts must be checked.

In this case, MicroBank’s average disbursed loan has declined, especially for the **Additional Benefit** product. The smaller average loan size probably reflects the take up of new members with smaller initial loans than the previously existing book of more mature loan business.

	Q1	Q2	Q3	Q4	Q1'00	2000 Total
Compulsory Credit Life						
	1,095	1,500	1,780	1,890	2,100	-
	262,800	270,000	311,500	359,100	380,000	-
	120,450	150,000	186,900	189,000	230,000	-
	1,298	1,640	1,835	1,995	-	6,768
	266,400	290,750	335,300	369,550	-	1,262,000
	135,225	168,450	187,950	209,500	-	701,125
	205	177	183	185	-	186
	104	103	102	105	-	104
Voluntary Additional Benefit						
	360	900	1,230	1,340	1,390	-
	72,000	180,000	246,000	268,000	278,000	-
	630	1,065	1,285	1,365	-	4,345
	126,000	213,000	257,000	273,000	-	869,000
	200	200	200	200	-	200
	102,000	205,000	225,000	235,700	262,800	-
	153,500	215,000	230,350	249,250	-	848,100
	426	239	187	186	-	195
	49	65	70	68	0	64

Portfolio Details

Table 7.4 MicroBank Insurance Experience, 1999-2000 (cont.)

	Q1	Q2	Q3	Q4	1999 Total
Compulsory Credit Life					
Premium Rate (% Disbursed Loan per 4 Months)	1.00	1.00	1.00	1.00	1.00
Total Premiums Accruing in Quarter - US\$	1,699	1,921	1,942	1,955	7,517
Premium Allocated for Expenses - US\$	119	134	136	137	526
Other Deductions - US\$	170	192	194	195	752
Expense Rate (Expenses / Premiums) - %	7	7	7	7	7
Other Deductions / Premiums - %	10	10	10	10	10
Per Policy Deductions & Expenses - US\$	0.27	0.28	0.28	0.29	0.28
Risk Premiums After Other Allocations - US\$	1,410	1,595	1,612	1,623	6,239
Effective Risk Premium Rate per Quarter - %	0.62	0.62	0.62	0.62	0.62
Voluntary Additional Benefit					
Premium Rate (% Insured Benefit per 4 Months)	1.20	1.20	1.20	1.20	1.20
Total Premiums Accruing in Period - US\$	549	572	608	639	2,367
Expenses Paid - US\$	82	86	91	96	355
Other Deductions - US\$	66	69	73	77	284
Expense Rate (Expenses / Premiums) - %	15	15	15	15	15
Other Deductions / Premiums - %	12	12	12	12	12
Per Policy Deductions & Expenses - US\$	0.49	0.49	0.49	0.49	0.49
Risk Premiums After Other Allocations - US\$	401	417	443	466	1,728
Effective Risk Premium Rate per Quarter - %	0.66	0.66	0.66	0.66	0.66

Premiums

	Q1	Q2	Q3	Q4	2000 Total	Total	Change
Compulsory Credit Life							
	0.94	0.94	0.94	0.94	0.94	0.73	-6%
	1,886	2,058	2,373	2,616	8,932	16,449	19%
	132	144	166	183	625	1,151	19%
	189	206	237	262	893	1,645	19%
	7	7	7	7	7	7	0
	10	10	10	10	10	10	0%
	0.25	0.21	0.22	0.22	0.22	0.25	-20%
	1,565	1,708	1,970	2,171	7,414	13,653	19%
	0.59	0.59	0.59	0.59	0.59	0.60	-6%
Voluntary Additional Benefit							
	1.20	1.20	1.20	1.20	1.20	0.90	0%
	1,136	1,921	2,318	2,462	7,838	10,205	231%
	170	288	348	369	1,176	1,531	231%
	136	231	278	295	941	1,225	231%
	15	15	15	15	15	15	0%
	12	12	12	12	12	12	0%
	0.49	0.49	0.49	0.49	0.49	0.49	0%
	830	1,402	1,692	1,797	5,721	7,449	231%
	0.66	0.66	0.66	0.66	0.66	0.66	0%

Premiums

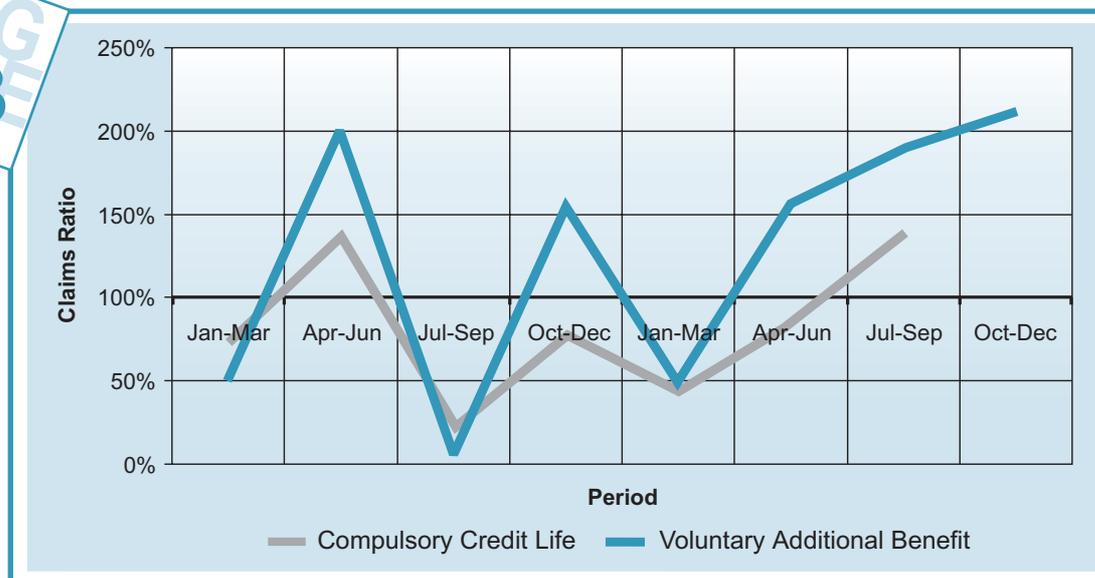
Table 7.4 MicroBank Insurance Experience, 1999-2000 (cont.)

	Q1	Q2	Q3	Q4	1999 Total
Compulsory Credit Life					
Number of Claims Incurred	6	12	1	9	28
Amount of Claims Incurred - US\$	1,020	2,160	150	1,260	4,590
Average Claim Incurred - US\$	170	180	150	140	164
Claims Rate per Quarter - %	0.45	0.84	0.06	0.48	0.46
Claims Ratio - %	72	135	9	78	74
Voluntary Additional Benefit					
Number of Claims Incurred	1	4	-	3	8
Amount of Claims Incurred - US\$	200	840	-	720	1,760
Average Claim Incurred - US\$	200	210	-	240	220
Claims Rate per Quarter - %	0.33	1.32	0.00	1.01	0.67
Claims Ratio - %	50	201	0	154	102

* Averages of start end figures

Claims Experience for 1999 and 2000

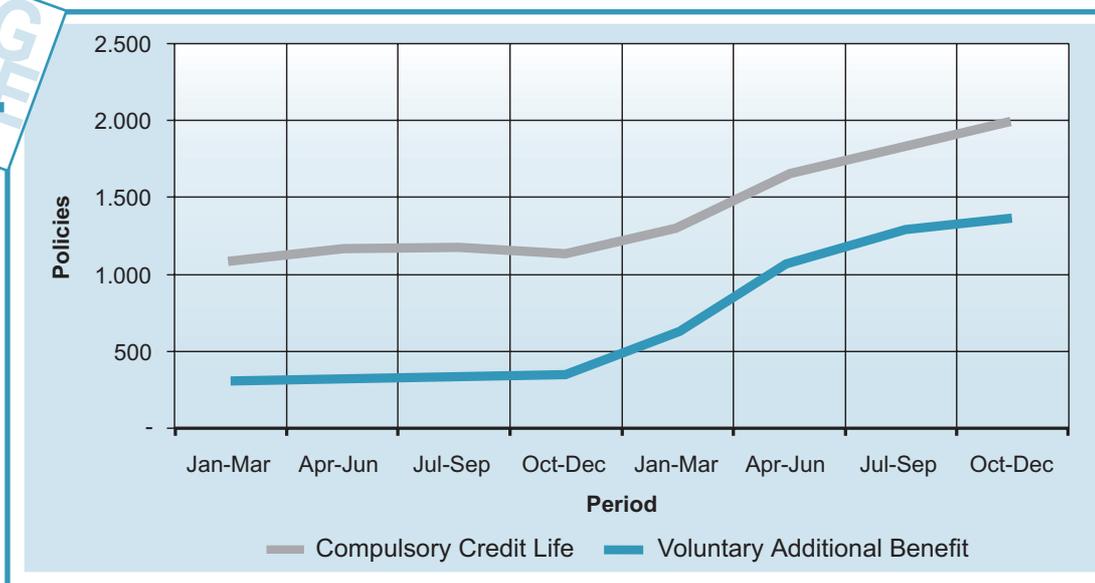
FIGURE
7.3



	Q1	Q2	Q3	Q4	2000 Total	Total	Change
Compulsory Credit Life							
	4	9	21	22	56	84	100%
	680	1,440	2,730	3,080	7,930	12,520	73%
	170	160	130	140	142	149	-14%
	0.26	0.50	0.81	0.83	0.63	0.55	37%
	43	84	139	142	107	92	45%
Voluntary Additional Benefit							
	2	11	16	19	48	56	500%
	400	2,200	3,200	3,800	9,600	11,360	445%
	200	200	200	200	200	203	-9%
	0.32	1.03	1.25	1.39	1.10	1.00	65%
	48	157	189	211	168	152	65%

Numbers of Policies 1999 and 2000

FIGURE
7.4



Step 3 – The Premiums

The premium rates for the **Credit Life** product in the new period under review are lower than in the previous period, reflecting the experience rated premiums.

It is quite possible that expense rates varied from the assumptions of 10 and 7 percent for **Credit Life** and 12 and 15 percent for **Additional Benefit**. However, profits or losses on actual versus expected expense items must be considered separately from the assessment of the risk premium rate. The theoretical expense rates are therefore used here, to obtain to underlying risk premium.

The effective quarterly risk premiums charged for the products are shown in the bottom lines in each of the sections of the Premium table.

Step 4 – The Claims Experience

As shown in Figure 7.3, MicroBank's claims experience shows as increasing (and possibly worrisome) trend, especially for the voluntary product. Some of the rise is attributable to the increased volume. If there were no reason to suspect changes in the business, these variations might be written off as random fluctuations. However, several fundamental changes to the portfolio did occur over the year to which the rising claims could be attributable.

Step 5 – Actual to Expected Claims Rates

The claims rates and the actual to expected claims ratios reveal that MicroBank's claims are escalating faster than the business is growing. The claim rates in 2000 are 65 percent higher than in 1999 for the voluntary benefit, and 37 percent higher for **Credit Life**.

Step 6 – Changes in Claims Rates

Why is the experience changing? Is this change temporary or permanent, once off or recurring, part of an ongoing trend or simply a freak random event? Some possible explanations include:

- **Changing risk profiles:** There could be a change in the demographic profile of MicroBank's members. Proportionally more members than before might be older, younger, male, female, or from a certain geographic location with localised risk factors like floods. Such changes might arise from changes in market conditions or from expansion into new markets or regions.

- **Increased adverse selection:** If certain benefit features make the insurance product attractive to poor risks (or expensive and poor value for good risks), persons with a greater likelihood of dying may find a way to join the scheme. This effect is limited if the scheme is compulsory, but the possibility of high risk individuals taking loans just to get the benefit of the insurance should not be ignored.
- **Epidemics:** HIV/AIDS is a major risk factor that introduces trends over time into mortality. HIV spreads invisibly and quietly at first and then some eight years later, the AIDS epidemic follows. AIDS-related mortality varies strongly by age and sex (for example, in Africa AIDS-related mortality is generally highest in older men and younger women). In areas with substantial epidemics, mortality rates increase steadily over an extended number of years. Trends should be monitored over long periods of time, and appropriate allowance made, as discussed below.
- **Natural disasters:** Weather events, floods or other significant risk events may have created an unusual peak in the claims.
- **No trend:** The possibility that there is no trend, and that the apparent trend is merely a random fluctuation in claims should not be ruled out, particularly for small schemes.

Response to Changes in Claims Rates

By understanding the reasons for changes in claims ratios, the MFI or insurer can take appropriate action including some or all of the following:

Alter Benefits to contain escalating costs. This is sometimes the only option if premiums cannot be increased and if the cause of the extra claim events cannot be deduced. If this course is adopted, the value of expected claims must be recalculated under the new basis, compared to the claims under the existing basis, and then the premiums must be adjusted accordingly.

Alter Premiums to allow for the changing risk cost. This may be a good option if there is an underlying change in nature of the risk (e.g. increasing premiums to allow for AIDS mortality), but it will aggravate problems if they are linked to adverse selection—higher rates are a bigger deterrent to low risk clients. A premium adjustment is easier to implement for once-off changes rather than for the long term since continual premiums increases are seldom popular with policyholders or marketers.

If claims rates are high because of an adverse selection problem, raising premiums will likely aggravate the problem since higher rates are a bigger deterrent to low-risk persons.

Experience rating is one way of modifying premiums. If there are increasing trends in the claim rates, however, experience rating will consistently underestimate the future claims rates by using the past to estimate a target that has subsequently moved. The premium rate applicable to the past period must be adjusted in light of the experience for that period, and then adjusted again for the trend between the experience rating period and the new premium period. For example, if claims rates have been increasing by 5 percent each year over the last three years, then it would be prudent to assume that a further 5 percent deterioration will apply to the following year, other things being equal. The risk premium rate must be accordingly increased.

Trends may follow a number of possible patterns: linear, geometric, exponential or logarithmic. Mathematical analysis is required for fitting and projecting trend curves. Prudence should guide the estimation of the premium for the following year. If there appears to be a trend, it may be better to overestimate the extent of the future increase than to underestimate it and be caught short.

Change Policy Design. Exclusions, deductibles, waiting periods or eligibility criteria may help contain adverse selection or exclude certain risks that are too expensive or undesirable to cover such as wars or riots.

The impact of changes in policy design on premium rates is determined indirectly by the effect that the design change has on either the benefit or the probability of claim. These can be difficult to estimate, and sometimes it may be better to wait for the experience to emerge before assuming that a particular design change will reduce the claims in a certain way.

For example, suppose an MFI offers **Credit Life** coverage for all causes of death. There is an outbreak of war, and it realises that covering war-related deaths will be too expensive. The MFI changes its benefits on all new policies to exclude death due to war and riot. In its immediate past experience, war and riot deaths accounted for 20 percent of total deaths. In setting premiums for the next year, it may assume that the probability of claim will now reduce by some amount up to 20 percent if the exclusion is successfully enforced. Prudence might suggest that only, say, half of the saving should be allowed for, since it may not be entirely certain that all the saving will be realised.

Change Marketing Strategies. If the current target market has a particular risk profile, targeting another market can mitigate this effect. If claims experience is high, and members are old, for example, the MFI could target younger, healthier members.

If new members are likely to have a different probability of claiming, then the method of premium adjustment is as above. Again, it may be very difficult to estimate the impact of the new members on the probability of claim within the group. The safest method might be to make no allowance for a saving in the premiums until it emerges in the claims experience.

Do Nothing. If the movements in claims ratios are considered a random anomaly with little credibility, then there may be no need for drastic action. Caution and prudence advise a careful assessment of this option. The size of the risk pool is the most important factor: the larger the scheme, the smaller the chance that a pattern is purely anomalous.

Close the Business. If a trend appears to threaten the fundamental nature of the business, and the risk is deteriorating beyond the capacity of the insurer or MFI, the best advice may be to phase out the insurance business. This would be done by writing no new business, and by allowing existing policies to expire. This is possible with the short term MFI-insurance business, but is far more complicated with longer-term policies.

The MicroBank Example

There are a couple of possible explanations for the sharp and steady rise in MicroBank's claims experience. First, the new clients coming over from the defunct MFI may have been worse risks for some reason—perhaps older, sicker or located in an area with higher mortality.

Second, for the voluntary benefit, the change in take-up rates due to the marketing campaign may have also attracted members with different characteristics from those who were already taking up the cover. With a voluntary product it is also important to consider possible adverse selection effects whereby only the relatively high-risk members are purchasing the policy.

Whenever there is a substantial change in membership, the potential exists for changes in mortality profiles. However, there may be some other factor affecting the mortality rates. An increase in AIDS-related mortality, or some other medium-term epidemic might explain the increase, as might an increase in local conflict.

There are no hard and fast rules, but with the exceptions of very large schemes with highly credible experience, known underlying trends (like AIDS) or once off disasters, changes in claims ratios are most likely the result of random fluctuations. In general, unless there is a substantial change in the claims ratio—for example if the claims ratio exceeds 200 percent over a reasonable



period like an entire year for a mid-size scheme—then there may not be sound reason to alter underlying theoretical rates.

Step 7 – Credibility and the New Rate

As shown in the portfolio table, MicroBank’s 2000 experience contains 1692 new **Credit Life** policy-years ($\frac{1}{4}$ times the 6798 credit life policy-quarters in the table) and 1086 policy-years for the **Additional Benefit** scheme. These additional policy-years provide an opportunity to revise the risk premiums (the expected claims rate for the future) with greater credibility. This section considers three different ratemaking scenarios based on the possible interpretations of the higher claims rates: a) a chance fluctuation, b) a once-off shift, and c) an ongoing trend.

A Chance Fluctuation

If the changes in claim rates are purely chance fluctuations, then all the experience can be aggregated together. The new policy-years are added to the existing ones to obtain the new credibility factor:

$${}^{\text{CL}}Z_{2000} = \sqrt{2826 \div 25000} = 34\%$$

The quarterly credibility risk premiums for **Credit Life** for the combined years are:

$$\begin{aligned} {}^{\text{CL}}\text{CRP}_{2000} &= Z \times \text{combined claims rate} + (1-Z) \times \text{theoretical risk premium} \\ &= 34\% \times 0.55\% + (1 - 34\%) \times 0.62\% \\ &= 0.60\% \end{aligned}$$

Note that the previous underlying estimate, *not* the credibility premium for the previous year, is used as the theoretical or expected premium. A completely new credibility premium is calculated based on the theoretical rate and both years of experience.

A Once-off Fundamental Shift

If the alterations in the claims patterns are not random fluctuations, and the underlying claims rates have fundamentally shifted during the period, then a different approach is required. A certain amount of subjective judgement is

required here, and a number of possible methods can be used, all of which are approximate.

The major change seems to have occurred between the first and second halves of 2000 when MicroBank also experienced a significant increase in policies. The average rate of claim for the **Additional Benefit** from July 2000 to December 2000 was $(3200 + 3800) \div (257000 + 273000) = 1.32$ percent. For the period January 1999 to June 2000, the average rate of claim was only 0.72 percent. The rate for the last six months is roughly 80 percent higher than the rate for the previous 18 months. If there is reasonable confidence that this increase is not random, and it represents a fundamental shift in the probability of claiming, then the rating procedure may proceed as follows:

- Assume that the probability of claiming increased by some 80 percent around the middle of 2000.
- Increase the theoretical rate for the purposes of the rating exercise by this change factor, i.e., by 80 percent. The previous theoretical premium estimate (not the credibility premium) was 0.66 percent for **Additional Benefit**, so this is increased by 80 percent to 1.19 percent.
- Since the experience has been used to estimate this rate, it cannot be used for experience rating as well. The experience on the product is therefore effectively set to zero, and future experience rating exercises will ignore the experience up until 2000. The 2001 experience will serve as the first dataset for experience rating the under the new conditions. The new theoretical rate will be taken to be 1.19 percent

This approach should only be undertaken if there is great certainty that rate changes are due to fundamental, once-off changes.

An Ongoing Trend

Finally, there is the possibility that the changes are not part of a once-off change or random fluctuations, but are part of an ongoing trend. In this case, the past claims and premiums should be inflated (or deflated) at the trend rate from the period in which they occurred to the period to which the new premiums will apply.

Suppose there is a steady 20 percent per annum worsening in the underlying probability of claim, perhaps due to the effect of HIV/AIDS. If the change is occurring continuously (i.e. a linear trend), the new rate can be set so it is applicable in the middle of the subsequent period. The rate will be a little too high in the first part of the period and a little too low in the second half, but will be correct over the period on average.

To calculate rates for 2001, first apply the trend to all the historic premiums and claims. Premiums and claims rates from 1999 are increased by 20 percent from mid-1999 to mid-2000 and then another 20 percent from mid-2000 to mid-2001. Premiums and claims from 2000 are increased 20 percent from mid-2000 to mid-2001. The portfolio and experience are now all expressed in 2001 terms, and the experience rating is conducted as in the first case by aggregating the 1999 and 2000 experience together, calculating a credibility factor and weighting the prior theoretical rate with the experienced claims rate (all modified for the trend).

Trends could follow a number of shapes. Any underlying trend must be carefully assessed and the adjustment of the historic experience and premiums to the desired period should reflect the underlying trend, whatever its shape.

Step 8 – Adjusting for the Future

In Step 7, allowance was made to compensate for existing trends, from the period in which experience was gathered to the future period to which premiums will apply. No further allowance is required for these trends. If new conditions or circumstances are expected to emerge, then allowance may be required at this point. For example, the pricing exercise must take into account adjustments to expenses resulting possibly from operational streamlining, future modifications of the benefit design and so on.

Final Points on Experience Rating

The size of the scheme is the major factor affecting the credibility of the experience. For very large schemes, the experience is a statistically credible indicator of the underlying claim rates, and is given appropriate weight. For smaller schemes, however, the numbers of claims are very variable, and the claims rates are likely to be highly unstable. The underlying initial premium rates are critically important for small schemes since the experience is given so little weight and is unlikely to significantly affect the calculated premium.

Without highly sophisticated statistical tools, setting premiums by analysing experience is a combination of a science and an art. The science involves ensuring that data is appropriate and correct, carefully inquiring into trends and patterns and calculating numbers as accurately as possible. The art involves looking at all the relevant factors, and deciding how to make allowance for things in the future. This artistic science is something that can only develop with extensive experience, and a good understanding of the factors that affect the risk of the business. Whenever there is doubt as to the assumptions or the

effects of particular events, a prudent and conservative pricing approach is advisable.

KEY TERMS



- ✓ *Changing risk profiles*
- ✓ *Random fluctuations*
- ✓ *Once off shift*
- ✓ *Trends and trend lines*

7.3 Pricing New Products

In general, it is recommended that new products only be developed in conjunction with an expert in the risk field—insurers, actuaries or consultants. When a product is introduced for the first time, there is no experience upon which to base pricing, and an initial cost estimate must be obtained in some other way. After conducting market research, defining the insured event, insurable interest and the proposed benefits, the pricing exercise can proceed in a number of ways. This section briefly discusses three pricing approaches—a) outsourcing the responsibility to an insurance professional, b) relying on internal data and c) responding to the pricing of competitors—before introducing actuarial analysis and the use of morality tables.

Outsource Initial Pricing

Various contributors can help an MFI through an initial pricing exercise in exchange either for a fee or a share of the business, including insurers, reinsurers, actuaries and insurance consultants. Outsourcing initial pricing is certainly the best option for an MFI introducing an insurance product with no statistics upon which to base pricing. It is the only advisable option for a small scheme likely to experience volatile claims. Even commercial insurers lean heavily on the broader pricing expertise of international reinsurers when introducing new insurance products.

Internal Pricing Data

If an MFI has maintained records of client death (or disability), it could examine its own mortality experience even though there is no insurance product. If there is a sufficiently large and credible membership base, a claims experience



investigation can be done exactly as described above, but using a notional benefit rather than an actual one:

- Tabulate the number of “insured” lives over the last year (or years) as described above, together with the denominator of the premium rates for the proposed product (e.g., the disbursed loan amount for **Credit Life**).
- Tabulate the corresponding deaths among clients. Multiply the proposed benefit (the lump sum payout for **Additional Benefit**, the outstanding loan plus forgone interest for **Credit Life**) by the number of deaths to estimate the cost of claims.
- Divide the claims by the denominator to produce a claims rate, which is an initial risk premium estimate if the data is sufficiently credible. This risk rate is then adjusted from the period of investigation to the period of premium payment (i.e., from quarters to the average loan term).
- A **contingency rate** can also be added—this is in addition to the risk rate—to reflect the uncertainty of the estimate. For new products, the contingency can be as much as 100 percent.
- Finally the rate is loaded for expenses and other deductions to obtain a chargeable premium rate.

This premium rate can then be compared to other rates in the market, and the premiums that clients are willing to pay, to determine whether the product is viable. If it is too expensive, then revisions can be made either to the benefit design (offer a smaller benefit) or to the pricing basis. In any event, the pricing basis for a new product should always remain on the conservative side given the uncertainty involved.

If the MFI does not collect mortality information, then it may be advisable to set up a monitoring system to gather the mortality experience even without an insurance product in place, to determine the likely cost of a product. Once data and a more confident estimate of the cost is possible, then the product can be introduced.

The Practice of Competitors

Another way of pricing a new product is to examine similar services offered by competitors. How is their product structured? What rates do they charge? It is best to get some indication of profitability, but this may be impossible to obtain from a competitor. It is not sound practice to adopt a competitor’s product and simply undercut their rates by 10 percent. As with any insurance product,

prudence is advised. Care must be taken to make any adjustments required for differences in benefit design and the characteristics of the target market.

A competitor's rates can be used as the input, as the prior premium rate, in an experience rating exercise. New rates are then estimated using a weighted average of the competitor's rate and the MFI's own experience. This method has the advantage of drawing on the MFI's experience as well as the practice of an insurer currently serving a similar market. The effectiveness of this approach of course depends on the soundness the competitor's ratemaking.

Actuarial Pricing

Actuarial pricing of a product involves: a) determining all the insured events covered by the product, b) the benefits paid upon each event, and c) the probability of the occurrence of each event. For life insurance, this latter piece of information typically comes from a mortality table.³⁰

Mortality Tables

A **mortality table** contains the annual probabilities of death at each age and sex for a given population. The use of mortality tables in individual pricing is broadly outlined below. One of the key difficulties in this approach is in choosing an appropriate base mortality table from which to work. For example, it is useless to price a death benefit for persons in rural Burkina Faso using statistics from urban India, unless the differential between the Burkina and India mortality rates is known or can be estimated.

Table 7.5 is a mortality table for the South African national population in 2002 extracted from a model developed by the Actuarial Society of South Africa (ASSA). The model, called ASSA2000, projects the spread of HIV/AIDS through the population and estimates the mortality rates from all causes including HIV/AIDS. Separate mortality rates are produced for males and females, and for each age, since the level of mortality by sex and age are very different. Each number represents a person's probability of dying based on their age and sex between mid-2002 and mid-2003. For example, a 43 year-old male has a 0.026636 probability of dying, or 2.6636 percent of men that age are expected to die during the year.

³⁰ For health risks, **morbidity tables** are used to estimate the probability that illnesses and diseases will occur.



Table 7.5 ASSA2000 Mortality Rates—South African National Population 2002

Age	Males	Females	Age	Males	Females
21	0.003894	0.004284	44	0.026524	0.015676
22	0.004353	0.005816	45	0.026370	0.014764
23	0.004899	0.007555	46	0.026295	0.013984
24	0.005596	0.009375	47	0.026299	0.013330
25	0.006499	0.011162	48	0.026347	0.012810
26	0.007627	0.012839	49	0.026494	0.012469
27	0.008932	0.014312	50	0.026761	0.012297
28	0.010373	0.015556	51	0.027161	0.012293
29	0.011920	0.016605	52	0.027553	0.012396
30	0.013561	0.017654	53	0.027890	0.012575
31	0.015257	0.018677	54	0.028250	0.012847
32	0.016994	0.019525	55	0.028615	0.013194
33	0.018731	0.020207	56	0.029102	0.013667
34	0.020361	0.020671	57	0.029745	0.014294
35	0.021836	0.020935	58	0.030534	0.015077
36	0.023099	0.021013	59	0.031533	0.016022
37	0.024293	0.020953	60	0.032782	0.017108
38	0.025352	0.020733	61	0.034269	0.018312
39	0.026119	0.020318	62	0.035979	0.019673
40	0.026488	0.019572	63	0.037934	0.021194
41	0.026456	0.018530	64	0.040131	0.022843
42	0.026529	0.017553	65	0.042553	0.024643
43	0.026636	0.016638			

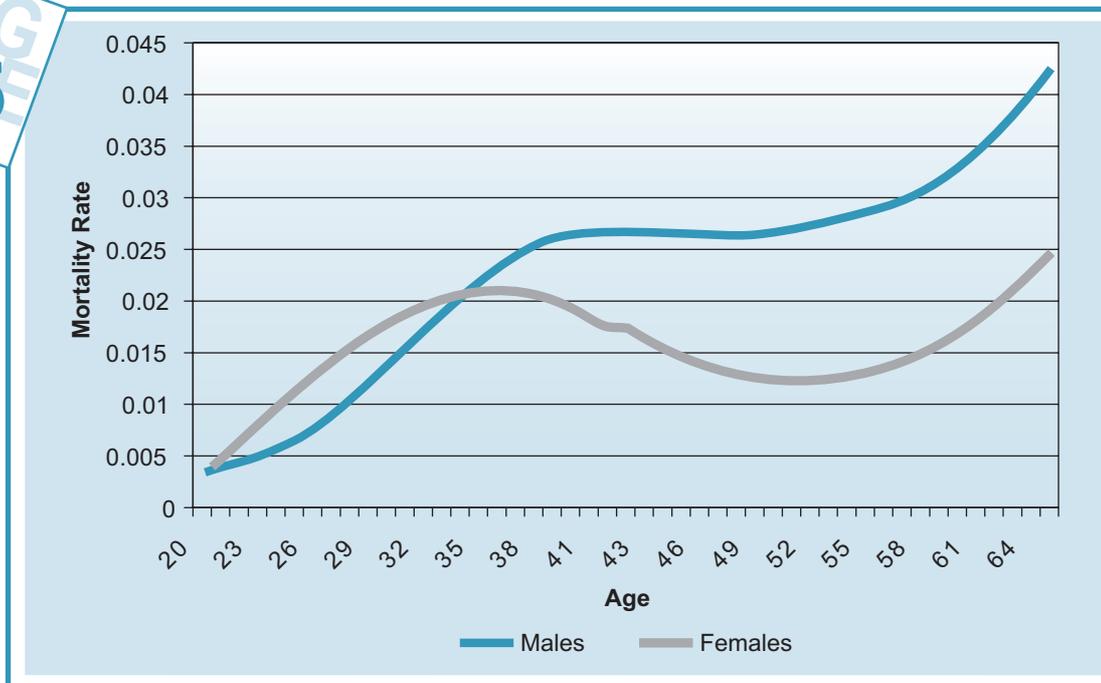
The difference in mortality rates between men and women, highlighted in Figure 7.5, underscores the importance of using an appropriate table. Using the female table to price benefits for a mostly male client base would generate inadequate premiums at the older ages, and overly expensive premiums at the younger ages.

Mortality tables also vary over time. Figure 7.6 shows the 2002 and 2005 mortality rates for males in South Africa from the same model. Clearly the mortality pattern is expected to shift greatly. From 2002 to 2005, the mortality rate for a 40 year old male increases by over 60 percent, leading to a corresponding increase in risk premiums. This difference is due primarily to an increase in AIDS-related mortality, which changes from year to year as the epidemic develops and matures.

Most mortality tables show that rates generally increase with age—the old are more likely to die than the young, although AIDS may be changing this. The differentials by other factors such as country, socio-economic status or urban/rural residence can be as large as the differentials over time, age and sex. Many factors influence the mortality rates within a population.

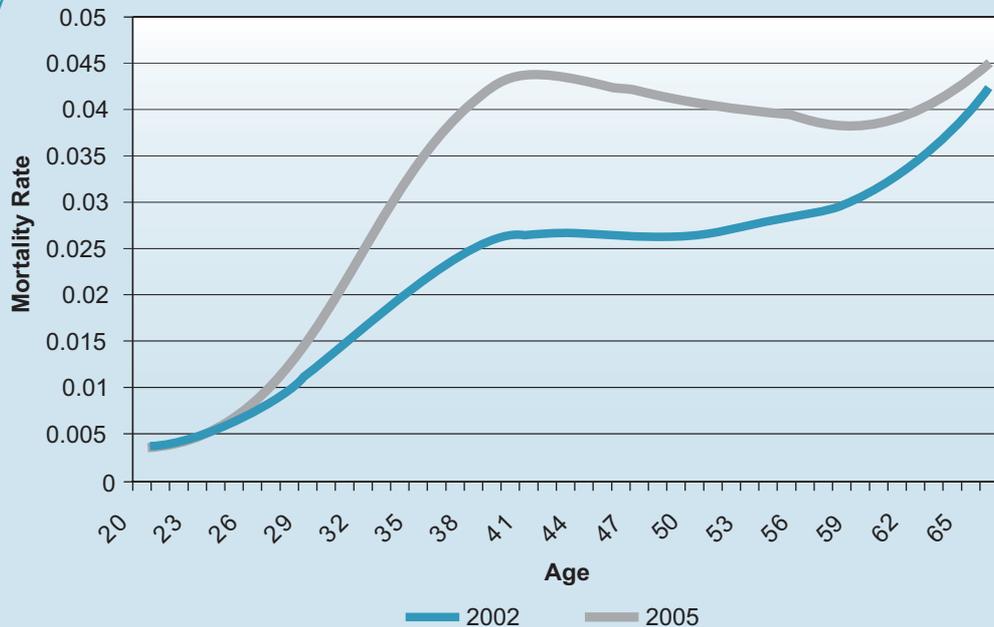
**ASSA2000 South African National Mortality Rates
(2002 Males and Females)**

FIGURE
7.5



**ASSA2000 South African National Mortality Rates
(2002 & 2005 Males)**

FIGURE
7.6



Individual Pricing with a Mortality Table

To develop a sound risk premium for a new life insurance product, the first step is to calculate insured benefit for each age and sex within the portfolio. This exercise is easier to do for a mandatory product like **Credit Life** because it would be applicable to all clients; for a voluntary product, the MFI has to make some assumptions about the characteristics of clients who will purchase it—will they be representative of the general client base or they be a specific, perhaps riskier, subset?

The insured benefit—the outstanding loan (plus interest) for **Credit Life** and the lump sum for **Additional Benefit**—is then multiplied by the probability of a claim, i.e. the applicable rate from an appropriate mortality table (remembering that most mortality rates are annual rates). These are then added up give the total expected claims.

The denominator of the premium rate is determined next, at each age and sex for the whole portfolio. These are summed to give the total denominator. Finally, to get a risk rate for the entire portfolio, the expected claims are divided by the denominator. The usual adjustments are then made, for contingencies, differences in rate periods (possibly from annual mortality rates to loan terms of cover) and expenses and other deductions.

Accurate individual pricing with a mortality table requires member-by-member data including at least age (or date of birth), sex, original disbursed loan, insured benefit (for **Additional Benefit**, **Additional Lives** and **Continuation**), outstanding loan at pricing date and preferably original loan term and date of loan commencement as well. This method is considerably more flexible and accurate, but requires extensive data and systems.

Group Pricing with a Mortality Table

The mortality table can also be used more simply to obtain a cruder estimate of the aggregate probability of claiming. If individual member age data is not available, a model age distribution can be assumed and applied to the age-based mortality rates. The probability function of the statistical normal distribution is sometimes applied to group life insurance pools.³¹ The relative proportion of the population at each age is given by the probability density function at the required age of a normal distribution of mean 40 and standard deviation 7. The normal distribution is built into most spreadsheet packages, or can be obtained from statistical reference materials.³²

The risk premium is the probability of claim multiplied by the benefit. To obtain an aggregate probability of claim, the individual age mortality rates are weighted by the insured benefit at each age. If benefits are fixed, then the total insured benefit at each age is simply proportional to the number of members at that age, and this is the weighting that is used. If benefits vary with age—for example if older clients have larger loans and hence larger **Credit Life** benefits—then the weighting will have to be adjusted accordingly.

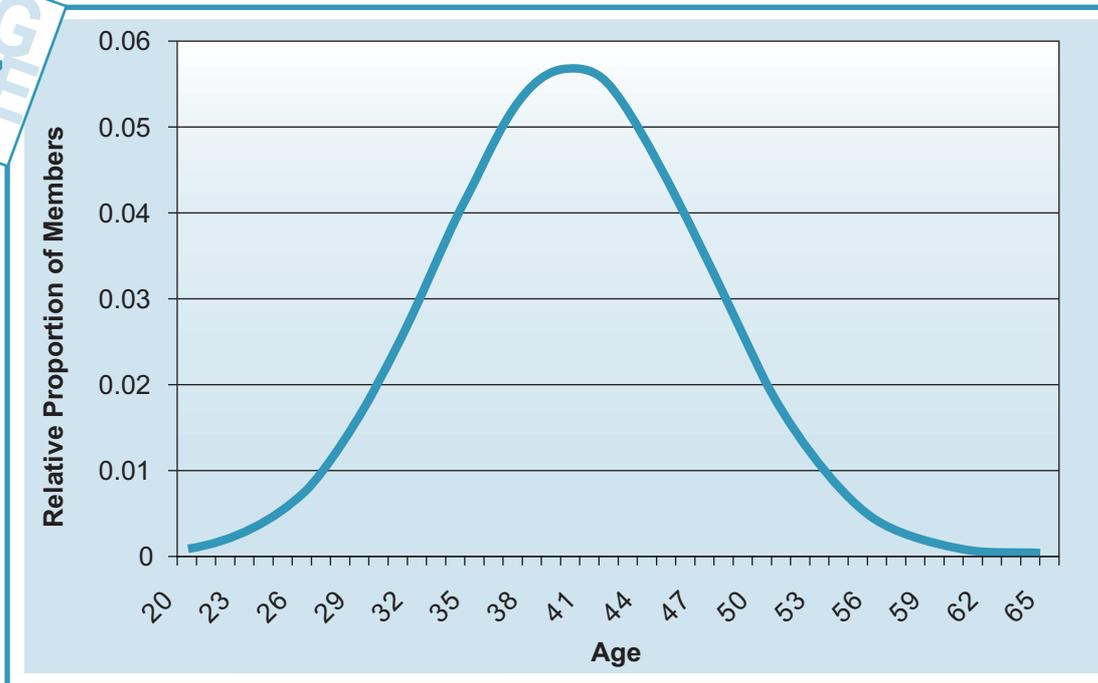
Since the weights are only relative weightings of the mortality rates, the absolute levels of the weights are not important. In the following example, the 2002 South African male mortality rates are weighted by a normal distribution as described above.

³¹ Group life insurance is a benefit often provided by employers to their employees and insured with a commercial insurance company.

³² In Microsoft Excel, use the `NORMDIST(x, mean, standard deviation, 0)` function., where *x* is the age required, the mean and standard deviation are 40 and 7 in this example, and the last 0 indicates that the function must return the probability density function, not the cumulative distribution function.

Normal Population Mean 40, Standard Deviation 7

FIGURE
7.7



The total of the weightings is 0.9982. The total of the mortality rates multiplied by the weightings is 0.0235. Dividing the 0.0235 by 0.9982 gives 0.02355, which is then the weighted average annual mortality rate applicable to the group. For a group of clients with mortality similar to the male 2002 South African population, this can then be multiplied by the average benefit, adjusted for term and loaded for expenses to provide a premium estimate.

To illustrate this group pricing method, consider a scheme with an average outstanding loan (including forgone interest) of US\$180, an average disbursed loan of US\$320, an average loan term of 4 months, an all male membership with a similar mortality profile to Table 7.6, and an age distribution of members that was approximately normally distributed with mean 40 and standard deviation 7 between ages 20 and 65. The probability of claiming in one four-month loan cycle is 4/12 times the probability of claiming in one year, which is therefore $0.02355 \times 4 / 12 = 0.007850$.

The expected claims on the average **Credit Life** policy in one loan cycle are US\$180 times $0.007850 = \text{US}\$1.413$ per policy per loan cycle. Dividing this by the average disbursed loan of US\$320 gives a risk premium rate of 0.4416 cents per dollar of disbursed loan or 0.4416 percent. If there is not much confidence in the accuracy or applicability of the table, the rate may be loaded up with a contingency, say 50 percent of this amount, to obtain a risk rate of $0.4416 \times (1+50\%) = 0.6623\%$.

**Table 7.6 Estimated Risk Premiums for Group Pricing
(from ASSA2000)**

Age Last Birthday	Males 2002	Normal Population N(40,7)	Risk Premium	Age Last Birthday	Males 2002	Normal Population N(40,7)	Risk Premium
20	0.0035	0.0010	0.0000	44	0.0265	0.0484	0.0013
21	0.0039	0.0014	0.0000	45	0.0264	0.0442	0.0012
22	0.0044	0.0021	0.0000	46	0.0263	0.0395	0.0010
23	0.0049	0.0030	0.0000	47	0.0263	0.0346	0.0009
24	0.0056	0.0042	0.0000	48	0.0263	0.0297	0.0008
25	0.0065	0.0057	0.0000	49	0.0265	0.0249	0.0007
26	0.0076	0.0077	0.0001	50	0.0268	0.0205	0.0005
27	0.0089	0.0102	0.0001	51	0.0272	0.0166	0.0005
28	0.0104	0.0131	0.0001	52	0.0276	0.0131	0.0004
29	0.0119	0.0166	0.0002	53	0.0279	0.0102	0.0003
30	0.0136	0.0205	0.0003	54	0.0283	0.0077	0.0002
31	0.0153	0.0249	0.0004	55	0.0286	0.0057	0.0002
32	0.0170	0.0297	0.0005	56	0.0291	0.0042	0.0001
33	0.0187	0.0346	0.0006	57	0.0297	0.0030	0.0001
34	0.0204	0.0395	0.0008	58	0.0305	0.0021	0.0001
35	0.0218	0.0442	0.0010	59	0.0315	0.0014	0.0000
36	0.0231	0.0484	0.0011	60	0.0328	0.0010	0.0000
37	0.0243	0.0520	0.0013	61	0.0343	0.0006	0.0000
38	0.0254	0.0547	0.0014	62	0.0360	0.0004	0.0000
39	0.0261	0.0564	0.0015	63	0.0379	0.0003	0.0000
40	0.0265	0.0570	0.0015	64	0.0401	0.0002	0.0000
41	0.0265	0.0564	0.0015	65	0.0426	0.0001	0.0000
42	0.0265	0.0547	0.0015	Total:		0.9982	0.0235
43	0.0266	0.0520	0.0014				

The MFI in question requires 33 percent of the final premium for expenses and deductions which leads to the following final premium rate: $0.6623 \div (1 - 0.33) = 0.9886\%$ or roughly 1 percent of disbursed loan. The premium, then, for a US\$500 loan is $500 \times 1\% = \text{US\$}5$.

Monitoring the Experience

Once an initial pricing is obtained, the emerging experience must be monitored, and the rate adjusted in light of the experience using the experience rating mechanism described in Sections 7.1 and 7.2. If new information or data becomes available then a re-pricing exercise may be useful. For example, previously unavailable mortality tables might be constructed for the population under consideration. In re-pricing, the theoretical rate for an existing product is priced from scratch. For very large schemes with highly credible experience, however, the scheme's own experience will be the best source of pricing data.

Confirmation Using Other Statistics

Aggregate statistics for various regions are available from many sources, particularly on-line. Although these data are not useful for pricing a product, they provide a valuable check on the reasonableness of the insurance pricing.³³

For example, suppose the estimated risk premium rate for **Credit Life** cover is 1.2 percent for a six-month loan in Burkina Faso, which equates to an annual rate of 2.4 percent. Assume that, on average, the outstanding loan plus forgone interest is two-thirds of the disbursed loan.

The risk premium for **Credit Life** is the probability of a claim times the benefit amount (outstanding balance plus interest) divided by disbursed loan amount. The probability of claim (the mortality rate) can therefore be estimated by multiplying the risk premium rate by the disbursed loans and dividing by the benefit amount (estimated at 67 percent of the disbursed loan on average), and hence is estimated by $2.4\% \div 67\%$ which is 3.58%. This result is the estimated annual probability of death within the portfolio.

According to the UNAIDS epidemiological fact sheet on Burkina Faso, the crude mortality rate in Burkina Faso in 1999 for the whole population is 18 deaths per thousand, or 1.8 percent. Mortality implicit in the premium rate

³³ One source of aggregate mortality statistics, which includes periodically updated AIDS information for various countries, is provided on-line by UNAIDS at http://www.unaids.org/hivaidinfo/statistics/june00/fact_sheets/index.html. Other sources of information include the UNDP's Human Development Report, which contains aggregate national mortality statistics, national governments, other UN or international bodies and academic institutions.

(3.58%) is roughly double this national rate, which suggests that the risk premium rate is high. This is even more so, since the national aggregate rate includes death of infants and the aged, and these groups typically experience far higher mortality than the rest of the population. Moreover the MFI may experience a positive selection effect since its clients are generally economically active and hence more likely than average to be healthy.

This rate appears conservative. It may still be appropriate however if the scheme is small and subject to variable experience, if the scheme's members are subject to some other risk such as flooding or disease, if there is chronic adverse selection, or if credible claims experience has been in line with this higher rate. However, for a large scheme with acceptable claims experience and not subject to any peculiar risks, the rate appears high. This rough check should therefore serve only as a guide. Discrepancies should be investigated and explained if possible, before pricing is altered.

KEY TERMS and CONCEPTS



- | | |
|---------------------------|-------------------------|
| ✓ Actuarial pricing | ✓ Monitoring experience |
| ✓ Confirmation of pricing | ✓ Mortality table |
| ✓ Contingency rate | ✓ Morbidity table |
| ✓ Group pricing | ✓ Mortality rate |
| ✓ Individual pricing | ✓ Normal distribution |

7.4 Pricing for Other Insurance Benefits

Credit Disability

The insurable event for **Credit Disability** includes the loss of a specified body part and certain types of paralysis and blindness. All of the same pricing principles for **Credit Life** apply to **Credit Disability**. Probability tables showing the likelihood of disabilities, however, are far more difficult to find than mortality rates. Possible sources of data include hospitals or local clinics, but even these data sources may not be useful.

The best approach may be to begin monitoring the loan portfolio for the incidence of disability events before introducing the insurance product. Once

an idea of the frequency of these events is determined, i.e., there is a first estimate of the probability of claim, then the above techniques can be applied.

As ever, when introducing a new insurance product it is best to price conservatively and offer the product to a limited market in a pilot test. If a favourable experience emerges, then premiums can be reduced, which can generate some marketing advantages. The bottom line is that the MFI is protected more by pricing high than by under-pricing.

Continuation

Under a **Continuation** policy, the client's **Additional Benefit** is allowed to continue beyond the original loan period. This option on a term life insurance policy can only be exercised at the end of a loan and the coverage must be renewed each month. Interruption of the premium payment leads to termination of the cover after a short grace period.

Continuation is generally riskier than the credit-linked benefits because it has a greater potential for adverse selection. Clients who are sick or dying may attempt to continue the cover without having to worry about repaying a new loan. Consequently, it is critical that the underwriting requirements and restrictions described in Chapter 3 are strictly applied.

The **Continuation** policy can use the same risk premium rates as the **Additional Benefit**. Unless there is evidence of great differences in claims rates between them, the two products can be grouped together for experience rating purposes to generate a single risk premium rate. The experience should, however, be monitored separately to ensure that joining the two together is valid. If the claim rates under the **Continuation** portion are much higher than **Additional Benefit's** claims, then they may need to be priced separately. Alternatively, the premium for the **Additional Benefit** could be increased by an amount to cover the adverse selection risk of the **Continuation** option.

It is also necessary to adjust for the term of the cover. The premium rates for the **Additional Benefit** were derived for average loan terms. The premiums for the **Continuation** policy are more likely to be monthly rates, which can be pro-rated from the period of the loan term. In addition, administrative expenses may need to be higher to allow for monthly premium collection. Box 7.3 provides an example of the adjustments required to price **Additional Benefit** and **Continuation** policies.

Pricing Exercise with Additional Benefit and Continuation Cover

7.3

BOX

Pricing Exercise with Additional Benefits and Continuation Cover

An MFI offers an **Additional Benefit** of US\$500 as an add-on to its Credit Life policy. The loan cycle period is six months, and the probability of death is based on several years of experience.

Insured benefit: \$500

Probability of death within the six-month period: 0.7%

Risk premium: = $500 \times 0.7\% = 3.50$

The expenses come to 30% of the total premium, which is therefore:

Charged premium: $3.5 \div (1-30\%) = \text{US\$}5.00$

The MFI wants to offer a **Continuation** cover with a monthly premium. What premium should be charged for the basic **Additional Benefit** cover once the **Continuation** option is introduced? What monthly premium should be charged for the **Continuation** cover? It is estimated that the allowance for expenses will need to be doubled for the Continuation cover.

The current risk premium for six month's cover is 3.50. To allow for adverse selection that is likely to accompany the option, the risk premium for the **Additional Benefit** is increased by 10 percent to $3.50 \times (1+10\%) = 3.85$

Adding in the expense allowance of 30 percent for the **Additional Benefit** cover gives a total premium of $3.85 \div (1-30\%) = \text{US\$}5.50$.

The risk premium for one month's cover is now $3.85 \div 6 = 0.3208$.

For the **Continuation** cover, the expense allowance doubles from 30 to 60 percent, and the chargeable monthly premium is therefore $0.3208 \div (1-60\%) = \text{US\$}0.802$.

Additional Lives

Of the five products presented in this manual, pricing for the **Additional Lives** cover probably has the greatest room for error because the MFI-insurer has a limited ability to directly screen or select the additional lives covered by this policy. This section describes issues associated the experience rating and initial pricing for **Additional Lives**.



Experience Rating for Additional Lives

The experience rating methods described above also apply to **Additional Lives**. The only difference lies in the tabulation of the portfolio. It is unlikely that detailed information on the age and sex of the additional lives will be available, so aggregate pricing methods are required. For additional lives to qualify for cover, it is necessary that the principle life or client have an **Additional Benefit** policy, which is the principal insured benefit. The death benefit for additional lives is 50 percent of the principal insured benefit for one adult and 25 percent of the principal insured benefit for four school-aged household members.

It is recommended that the same premium rate be charged regardless of the number of lives that the particular policyholder actually nominates. The pricing assumes that each policyholder will nominate the maximum allowable additional lives. This assumption is consistent with the experience of certain MFIs that have introduced this cover, where enrolment to the maximum occurred in almost every case. Should this pricing turn out to be excessive, experience rating will lead to reductions over time.

The experience rating of an existing product proceeds as outlined above for the **Additional Benefit**, with minor modifications:

- The most convenient denominator for the premium rate is the principal insured benefit. The premium rate is expressed as a percentage of this principal insured benefit although the actual benefit payable upon the death of an additional life is the defined percentage of this amount.
- The insured benefit for the numerator is the sum of the actual death benefits payable to the various lives. This is 150 percent of the principal insured benefit (50 percent for the adult plus 25 percent for each of the four children).
- The claims paid in the period will reflect all claims paid for any of the lives covered by this **Additional Lives** policy, adults or children.
- The number of policies will reflect the number of policies at the start and end of the period, not the number of lives covered, since each policy has up to five lives.
- The credibility factor, Z , should be higher because the number of policy-years implicit in the experience is higher. Although the pricing assumes that each policy has the maximum five additional lives, for credibility purposes it would be prudent not to give such a high weighting to the experience. Moreover, the different classes of lives within this particular risk pool increases the variability of the claims experience, and credibility theory then requires a higher number of policy-years for full credibility. A practical (and rather arbitrary) method would be to take the number of

life-years of experience to be simply the number of policy-years of experience.

The premium rate contains the probability that any one of the persons covered by the **Additional Lives** policy dies. This group is very diverse with a range of different mortality rates, so the method is approximate. A more accurate analysis may be done by analysing adult and children separately.

Initial Pricing for Additional Lives

If each of the additional lives has the same probability of claiming as the principle life, then an initial estimate of the premium rate for this cover would be 150 percent of the premium for the principle insured benefit. This initial estimate is possibly conservative, since a number of the additional lives are children, and children (not infants) generally experience much lower mortality rates than adults. However, there is very little control over the lives admitted, and very little knowledge of their risk profile. The adult could well be an aged parent; the children might be infants with high mortality.

If fewer additional lives enrol than the maximum allowed, then the premium will be overstated. The claims experience should theoretically be more favourable than allowed for in the premium basis, and experience rating will lead to a reduction in the premium rate over time if this is appropriate. The experience of this benefit must be particularly carefully monitored given the vast adverse selection potential.

7.5 Conclusion

All pricing exercises attempt to estimate the probability of claim. This probability is difficult to determine exactly since it varies from individual to individual and, being only a probability, can never be directly measured. Premiums involve three basic components: a) the probability of claim, b) the benefit payable on the claim event and c) a denominator which converts the premium into a rate. These elements can be identified and estimated on an individual basis, or over a group of people in aggregate. Aggregate pricing methods are recommended for MFIs since individual methods require technical expertise, significant computing resources and substantial input data. The products offered by MFIs are generally amenable to aggregate pricing methods since the conditions of insurance are not fixed for any significant period.

Experience rating involves the adjustment of an existing, theoretical or prior premium rate in line with the actual claims experience. The weighting given to

the actual claims experience depends on its statistical credibility. Great care is required to ensure that past experience is applicable to the future period for which premiums are required. This involves analysing ongoing trends and once off changes in factors affecting claim rates.

Initial pricing exercises for new products will make use of any relevant data that the MFI currently has as well as information, data and advice from a range of other sources including competitors, government agencies and insurance associations.

The methods provided in this chapter are guidelines rather than definitive answers to the problems of pricing. Subjective assessments of situations are often required and insurance experience is necessary for the ongoing successful management of a risk portfolio.

Because of the complexities of risk pricing, a relationship with a commercial insurer, actuarial consultancy or other expert in the risk field is strongly advised, especially when developing new products. Given the many risks and uncertainties involved, a prudent and cautious philosophy must be the foundation of all pricing exercises.

Glossary

A cquisition costs	Expenses incurred in attracting customers, including sales force salaries, marketing and advertising costs, and other expenses incurred before a prospect purchases a policy.
Actuary	A person who calculates insurance premiums, reserves, and dividends.
Adverse selection	Also called anti-selection , the tendency of persons who present a poorer-than-average risk to apply for, or continue, insurance. If not controlled by underwriting, results in higher-than-expected loss levels.
Age requirement	Stipulated minimum and maximum ages below and above which the company will not accept applications or may not renew policies.
Agent	An insurance company representative who sells and services insurance contracts for the insurer; the intermediary between the insurer and the policyholder.
Aggregate excess policy	A type of reinsurance in which the reinsurer pays claims that exceed certain value during a specific time period.
Annuity	A contract that provides an income for a specified period of time, such as a number of years or for life.
Anti-selection	See adverse selection .
Asset and liability management	Matching the expected maturity of an MFI's assets to the projected demand for funds, i.e., to ensure adequate liquidity to meet payments on their due date.
B eneficiary	The person who receives a life insurance benefit in the event of the policyholder's death.
Benefit or benefit amount	The amount payable by the insurer to a claimant or beneficiary upon the occurrence of the insured event. The benefit amount should be consistent with the insurable interest. Allowing coverage above the insurable interest creates fraud and moral hazard risks.
C ancellation	The discontinuance of an insurance policy before its normal expiration date.
Cede	To transfer all or part of an insurer's risk to a reinsurer.



Claim	A request for payment under the terms of an insurance contract when an insured event occurs.
Claims processing	The system and procedures that links the occurrence of an insured event with a payout. It is extremely important that microinsurers minimise the time spent in processing claims so that payouts can be made as quickly as possible.
Claims rate	Total claims divided by the insurance portfolio.
Claims ratio	The actual claims divided by the expected claims (or risk premium). Insurers generally prefer for the claims ratio to be less than 100 percent—i.e., actual claims are less than expected claims.
Claims rejection	Payouts should not be made if claims do not meet the required criteria (e.g., insured event occurring after the insurance term), however, through product design and client education, every effort should be made to reduce the likelihood that invalid claims are submitted.
Clawbacks	Commission paid to an agent that the insurer retrieves if the insurance contract is cancelled.
Client education	Since the target market may not understand how insurance works and may have some biases against insurance, the delivery of microinsurance may require a training component to teach clients how insurance works and how it might benefit them.
Commission	The part of an insurance premium paid by the insurer to an agent for his or her services in procuring and servicing the insurance contract.
Complaint and suggestion system	An important fraud prevention strategy, MFIs should have a mechanism and a strategy to actively solicit customer complaints that bypasses their primary point of contact, the loan officer.
Compulsory cover	Insurance that one is required to purchase, either because of government mandate (e.g., third party liability auto insurance) or as a condition for accessing another service (e.g., credit life insurance that is required when one takes a loan). Compulsory cover can control adverse selection and significantly reduce administrative costs.
Contract	See policy .



GLOSSARY

Co-payments	Used by insurers to share risk with policyholders and reduce moral hazard, this mechanism establishes a formula for dividing the payment of losses between the insurer and the policyholder. For example, a co-payment arrangement might require a policyholder to pay 30 percent of all losses while the insurer covers the remainder.
Covariant risk	A peril that affects a large number of the policyholders at the same, e.g., an earthquake; or several risks that consistently occur together (at the same time or under the same circumstances).
Cover or coverage	The scope of protection provided under an insurance contract.
Credibility factor	A statistical measure of the degree to which past results make good forecasts of future results. Denoted Z , this factor is used to calculate the credibility risk premium. For MFI life insurance, the credibility factor equals the square root of N divided by 25 000, where N is the number of policy-years of experience.
Credit life	Insurance coverage that repays the outstanding balance of a loan if a borrower dies.
D eath risk	The chance that a borrower will die with a loan outstanding.
Deductible	Also known as excess , an amount that a policyholder agrees to pay, per claim or per accident, toward the total amount of an insured loss. Insurers use this mechanism to share risk with policyholders and reduce moral hazard.
E ligibility	The criteria by which one is able to purchase an insurance policy; intended to control adverse selection (e.g., there may be age restrictions that prevent people above or below a certain age from accessing insurance).
Estate	The assets and liabilities of a person left at death.
Excess	See deductible .
Exclusions	Specific conditions or circumstances listed in the policy for which the policy will not provide benefit payments. Moral hazard is partly managed through exclusions that remove the financial gain from the undesirable action. For example, most insurance policies do not pay benefits if the injury, disability or death is self-inflicted. Exclusions also help to control covariant risk; many policies exclude losses due to wars, riots, and natural disasters or “acts of God.”
Expense ratio	The ratio of a company’s operating expenses to premiums.



Experience	The record of claims made or paid within a specified time period.
Experience rating	Determination of the premium rate for a risk made partially or wholly on the basis of that risk's past claim experience.
F ace value	Amount to be paid out by an insurance policy if either the insured event occurs (of for endowment policies if the policy matures).
FAQ sheets	A list of Frequently Asked Questions used to train field staff how to respond to customer queries; helps to standardise information delivery across branches.
Fraud	Intentional perversion of truth to induce another to part with something of value.
G race period	A specified period after a premium payment is due, in which the policyholder may make such payment, and during which the protection of the policy continues.
H ealth insurance	Protection from illness, accidents and other health-related risks.
I ncurred claims	The claims paid during the policy year plus the claim reserves as of the end of the policy year, minus the corresponding reserves as of the beginning of the policy year. The difference between the year-end and beginning of the year claim reserves is called the increase in reserves; this is added to the paid claims to produce the incurred claims.
Independent	The occurrence of the insurable event should be statistically independent from individual to individual. In other words, the chance of the event happening to one individual is not affected by the fact that it has happened to another.
Insurable interest	The financial loss suffered by an individual when an insured event occurs. If the insured party does not suffer a financial loss, i.e., does not have an insurable interest, there is no need for them to receive a financial benefit.
Insurable risk	The conditions that make a risk insurable are (a) the peril insured against must produce a definite loss not under the control of the insured, (b) there must be a large number of homogeneous exposures subject to the same perils, (c) the loss must be calculable and the cost of insuring it must be economically feasible, (d) the peril must be unlikely to affect all insureds simultaneously, and (e) the loss produced by a risk must be definite and have a potential to be financially serious.



GLOSSARY

Insurance	A system under which individuals, businesses, and other entities, in exchange for a monetary payment (a premium), are guaranteed compensation for losses resulting from certain perils under specified conditions.
Insured	The policyholder , the person or entity protected in case of a loss or claim.
Insured event	The trigger event that leads to the submission of a claim (e.g., death of the policyholder).
L apse	The termination or discontinuance of an insurance policy due to non-payment of a premium.
Lapsed policy	A policy terminated for non-payment of premiums.
Law of large numbers	Concept that the greater the number of exposures, the more closely will actual results approach the probable results expected from an infinite number of exposures.
Life insurance	Coverage providing for payment of a specified amount on the insured's death, either to the deceased's estate or to a designated beneficiary; or in the case of an endowment policy, to the policyholder at a specified date.
Life savings	A life insurance product with the benefit linked to the amount of savings that a person has in an account. Popularised by credit unions as a means to promote savings, premiums on this group policy are paid by the financial institution to an insurer based on a multiple of the total value of savings accounts.
Loading	The amount that must be added to the pure premium for expenses, profit, and a margin for contingencies.
M anagement information system	Computerised and manual methods for keeping track of the data required for designing, delivering and monitoring the performance of insurance products.
Mandatory insurance	See compulsory cover .
Market research	Techniques used to determine a) the strength and characteristics of the demand for insurance, and b) information about insurance and insurance substitutes available in both the formal and informal markets.
Moral hazard	A risk that occurs when insurance protection creates incentives for individuals to cause the insured event; or a behaviour that increases the likelihood that the event will occur, for instance bad habits such as smoking in the case of health insurance or life insurance.



Morbidity	The relative incidence of disease.
Mortality	The proportion of deaths to the total population.
Mortality table	An actuarial table, based on mortality statistics over a number of years, showing how many members of a group, starting at a certain age, will be alive at each succeeding age. To be appropriate for a specific group, it should be based on the experience of individuals having common characteristics, such as sex or occupation.
Option	When an insurance company gives the policyholder the right to make some choice in the future that the company guarantees to honour. A common type is the continuation option, whereby policyholders can continue an insurance cover after the original period has concluded.
Outsourcing	The practice of subcontracting work to outside individuals and firms.
Partner-agent model	The least risky approach for an MFI to provide microinsurance. The MFI acts as an insurance agent, selling and servicing policies. The insurance company, or partner, manufactures the insurance product.
Payment delay	Average number of days from the submission of the claim to the payment.
Performance ratios	Key figures that are used to track the financial performance of an insurer (see Table 6.5).
Period of investigation	The time period covered in an experience rating exercise; ideally it should be as long as possible. If a previous exercise was conducted then the new investigation should examine the period since the last investigation.
Pilot test	The implementation of a new product in selected branches for an initial period of time to ensure that the product design and implementation strategy works well before rolling it out to all branches.
Policy	The legal document issued by the company to the policyholder that outlines the conditions and terms of the insurance; also called the policy contract or the contract .
Policyholder	A person or entity that pays a premium to an insurance company in exchange for the coverage provided by an insurance policy.



GLOSSARY

Policy-years	The average number of policies during each sub-period of an experience rating investigation multiplied by the length of the sub-period in years (e.g., a quarter is $\frac{1}{4}$ of a year).
Portfolio insurance	A method for MFIs to manage death risk by purchasing an insurance policy that would reimburse the MFI for a percentage of the outstanding balance if borrowers die.
Positive selection	The design of an insurance product so that low risk individuals subscribe to it, such as only insuring persons who have been deemed eligible for microenterprise loans since they are presumably healthy enough to run their own businesses.
Pre-existing condition	A physical and/or mental condition of an insured that first manifested itself prior to the issuance of his/her policy.
Premium	The sum paid by a policyholder to keep an insurance policy in force.
Premium rate denominator	To quote the premium as a rate, it is necessary to express it as a percentage of something that has a clear and common meaning to both the MFI and the client. For the outstanding balance products (Credit Life and Credit Disability), the disbursed loan amount is used; for the other products, the denominator is the benefit amount.
Probability	The likelihood that the insured event will occur.
Product manufacturing	The process of determining the product's features, such as the insured event, the waiting period, exclusions, the term, the benefit and the price.
Product servicing	The process of verifying claims and submitting claims requests; all after-sale interaction with policyholders.
Projection to actual analysis	A critical monitoring system to regularly compare an MFI's actual performance to its expected performance.
Proof of loss	Documentation presented to the insurance company by the insured in support of a claim so that the insurer can determine its liability under the policy.
Property insurance	Provides financial protection against loss or damage to the insured's property caused by such perils as fire, windstorm, hail, etc.
Pure premium	See risk premium .
R&D committee	A cross-functional team, which includes representatives from all departments, responsible for shaping and guiding the organisation's product development process.



Random fluctuations	Since insurance involves estimating probabilities, one possible explanation for unexpected claim rates (high or low) is that it is just a natural occurrence that will even out over time; this explanation is particularly applicable to small risk pools.
Ratemaking	The process of estimating the expected costs involved in providing insurance coverage in order to set appropriate premium rates.
Recurring premium	The payment for insurance that occurs in instalments, such as monthly or quarterly payments, as opposed to single premiums , which are paid at the beginning of the term to cover the whole period.
Regulation	Government defined requirements for an insurer, such as minimum capital requirements and necessary expertise; also provides consumer protection through the oversight of insurers, including pricing policies, form design and appropriate sales practices.
Reinsurance	A form of insurance that insurance companies buy for their own protection.
Renewable term cover	Term insurance that can be renewed at the end of the term, at the option of the policyholder and without evidence of insurability, for a limited number of successive terms.
Reporting delay	Average number of days between the occurrence of insured events and the submission of the claim.
Reserves	An amount representing liabilities kept by an insurer to provide for future commitments under policies outstanding.
Risk	The chance of loss.
Risk pooling	The dispersal of losses incurred by a few over a larger group.
Risk premium	The portion of the premium that is used to fund claims and is equal to the expected claims. Also known as pure premium .
Risk-managing financial services	Besides insurance, emergency loans and accessible savings accounts can help low-income persons to manage their risks.
S creening	Also known as underwriting , the process by which insurance applicants are filtered. For example, applicants may be required to sign a “declaration of health” asserting their good health. High-risk individuals may be excluded or charged more.
Settlement	Payment of the benefits specified in an insurance policy.



GLOSSARY

Stop-loss policy	An agreement from a reinsurer to cover total claims over a certain percentage of premiums.
Sum assured	See total insured benefit .
T ake up rate	With voluntary insurance, the percentage of possible customers who do purchase the coverage.
Tender offer	A method of objectively analysing prospective insurance partners or consultants whereby the MFI clearly identifies what activities or interventions it requires and then requests qualified candidates to bid on fulfilling those activities.
Term insurance	Life insurance payable to a beneficiary only when an insured dies within a specified period.
Term of cover	The period within which the insured event must occur for a claim to become payable; could be either a fixed term (i.e., one year, five years) or whole life.
Time limit	The period of time during which a notice of claim or proof of loss must be filed.
Total insured benefit	Also referred to as the total sum assured , this is the sum of all individual benefits.
Trend analysis	A method of evaluating the organisation's performance over time to see if key indicators such as profitability and claims ratios are improving or worsening; in analysing trends, careful attention should be given to seasonal fluctuations.
U nderwriting	Process of selecting risks for insurance and determining in what amounts and on what terms the insurance company will accept the risk. See also screening .
Unearned premium	The portion of a premium that a company has collected but has yet to earn because the policy still has unexpired time to run.
Unit costing	A method of allocating income and expenses, including a proportion of overhead costs, to specific products or services to assess their profitability; may also include disaggregating costs for different steps in the product delivery process to identify inefficiencies.
V erification	The process by which claims are determined as being valid, i.e., for life insurance requiring a death certificate and/or attending the funeral of the deceased. Verification needs to balance two objectives: a) to provide proof that the insured event occurred from two independent parties, b) without causing undue hardship for beneficiaries. Also known as claims validation, claims underwriting or adjusting .



Voluntary cover

Allows consumers to choose the amount, term and type of insurance that they want; contrasted with **mandatory** or **compulsory insurance**.

Waiting period

The length of time a policyholder must wait before one's coverage becomes effective. Designed to control adverse selection; for example with life insurance, a delay between the time when policyholders begin paying premiums and when the coverage is applicable reduces the risk that someone who is about to die will purchase a policy.



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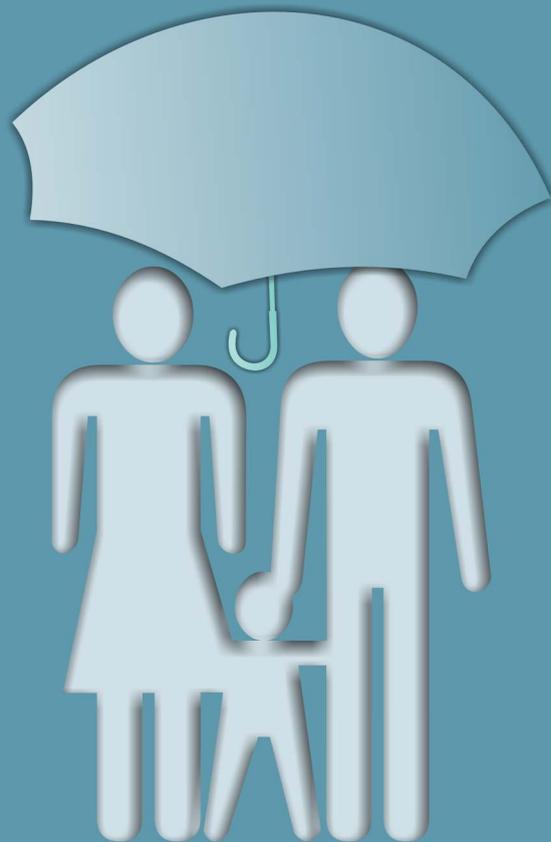
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