Chapter 10: Managing Property and Liability Risk: 10.1 Risk and Risk Management
Book Title: Personal Finance
Printed By: Xzavier Shugars (xfshugars@eiu.edu)

10.1 Risk and Risk Management

10.1a People Often Misunderstand the Concept of Risk

Learning Objective 1 - Apply the risk-management process to address the risks to your property and income.

Risk (Uncertainty about the outcome of a situation or event.) is uncertainty about the outcome of a situation or event. It arises out of the possibility that the outcome will differ from what is expected. In the area of financial losses, risk consists of uncertainty about both whether the financial loss will occur and how large it might be. There are two types of risk. **Speculative risk** exists in situations where there is potential for gain as well as for loss. Investments such as those made in the stock market involve speculative risk. **Pure risk** exists when there is no potential for gain, only the possibility of loss. Fires, automobile accidents, illness, and theft are examples of events involving pure risk. Insurance only addresses pure risk.

Many people think of "odds" or games of chance when they hear the word risk. In fact, risk and chance are different concepts. The difference between the two is subtle but very important. An event with a 95 percent chance of occurring is highly likely to occur. Thus, both uncertainty and risk are low. An event with a 0.000001 percent chance of occurring is highly likely *not* to occur. Thus, both uncertainty and risk are low. When an event has a moderate chance of occurring—5 percent, for example—the uncertainty and risk are relatively high because it is difficult to predict the one person in 20 who will experience the event. In such cases, insurance often represents a wise choice for reducing risk.

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Chapter 10: Managing Property and Liability Risk: 10.1b Apply the Five-Step Risk-Management Process
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10.1b Apply the Five-Step Risk-Management Process

Risk management (Process of identifying and evaluating purely risky situations to determine and implement appropriate management.) is the process of identifying and evaluating situations involving pure risk to determine and implement the appropriate means for its management. Risk management entails making the most efficient arrangements *before* a loss occurs. Risk management usually requires the purchase of insurance, although insurance is only one of the ways to handle risk, and it is not always the best choice.

The risk-management process involves five steps:

Step 1: Identify Your Risk Exposures

Sources of risk are called **exposures** and these include the items you own and the activities in which you engage that expose you to potential financial loss. Owning and/or driving an automobile are common exposures. To determine your exposures to risk, you should take an inventory of what you own and what you do. You also need to identify the **perils** (Any event that can cause a financial loss.) that you face, which are any events that can cause a financial loss. Fire, wind, theft, vehicle collision, illness, and death are examples of perils.

The items you own and your day-to-day activities expose you to two types of losses: property and liability. **Property insurance** (Protection from financial losses resulting from the damage to or destruction of your property or possessions.) protects you from financial losses resulting from the damage to or destruction of your property or possessions. **Liability insurance** (Protection from financial losses suffered when you are held liable for others' losses.) protects you from financial losses suffered by others for which you are held responsible (**legally liable**). Coverage includes your legal fees if you are sued but does not include coverage for your intentional acts and contractual obligations. The most commonly purchased forms of property and liability insurance are insurance for your home and its contents and insurance for your use and ownership of vehicles.

Step 2: Estimate Your Risk and Potential Losses

Next you estimate loss frequency and severity. **Loss frequency** is the likely number of times that a loss might occur over a period of time. **Loss severity** describes the potential magnitude of a loss.

Many people wonder whether they should buy insurance when loss frequency is low, for example, if they are young and healthy or if they live in a safe neighborhood. This is not a good way to think about potential losses because they still could occur, and if loss frequency is low, the cost of insurance would be small. Figure 10-1 illustrates the relationship between loss frequency and loss severity in risk management.

Figure 10-1

The Relationship between Severity and Frequency of Loss

	HIGH SEVERITY	LOW SEVERITY
LOW FREQUENCY	Purchase insurance to cover the potentially large losses. Their infrequency will make premiums affordable.	Consider retaining risk because the frequency and severity of loss are both low.
HIGH FREQUENCY	Purchase insurance. Loss control efforts can be useful in reducing the necessarily high premiums.	Retain risk but also budget for losses that are likely to be frequent.

Did You Know?

Bias Toward Underestimating Risk

People engaged in managing property and liability risk have a bias toward certain behaviors that can be harmful, such as a tendency toward underestimating risk. Many fail to buy insurance for events that are rare and think that a catastrophe will not happen to them. What to do? Recognize that the cost of insurance is very low for rare events and adding to our policy limits is inexpensive.

What is most important is loss severity. “How much might I lose?” is the question to ask. When considering possible property losses, you simply make an estimate of the value of the property. Liability losses are more complicated because the severity of the loss depends on the circumstances of the person you harm. For example, if you caused an accident that permanently disabled a young heart surgeon with three small children, you would be liable for the surgeon's care, lost earnings over his or her lifetime, and future care and education of the children. A loss of several million dollars is not out of the question in such a situation.

Step 3: Choose How to Handle Your Risk of Loss

The risk of loss may be handled in five ways: risk avoidance, risk retention, loss control, risk transfer, and **risk reduction** (Includes mechanisms, such as insurance, that reduce the overall uncertainty about the magnitude of loss.) . Each strategy may be appropriate for certain circumstances, and the mix that you choose will depend on the source of the risk, the size of the potential loss, your personal feelings about risk, and the financial resources you have available to pay for losses.

- **Risk avoidance**. The simplest way to handle risk is to avoid it. For example, choosing not to own an airplane or not to sky-dive limits your exposures.

- **Risk retention** (Accepting that some risks simply arise in the course of one's life and consciously retaining that risk.) . A second way to handle risk is to retain or accept it. For example, you can use a **deductible clause** (Requires that the policyholder pays an initial portion of any loss.) in an insurance policy to retain an initial portion of the risk. In this way, you pay the first dollars of a loss (perhaps $200 or $500) before the insurance company will reimburse for a loss.

- **Loss control** (Designing specific mechanisms to reduce loss frequency and loss severity.) . Loss control is designed to reduce loss frequency and loss severity. For example, installing heavy-duty locks and doors may reduce the *frequency* of theft losses. Installing fire alarms and smoke detectors cannot prevent fires but should reduce the *severity* of losses from them. Insurance companies often require loss-control efforts or give discounts to policyholders who implement them.

- **Risk transfer**. Another way to handle risk is to transfer it to an insurance company.

- **Reduce Risk to Acceptable Levels**. The final way to handle risk is to reduce it to acceptable levels. Insurance is used by policyholders when they arrange for all or a portion of their risk to be covered by an insurance company, thereby reducing their personal level of risk.

Step 4: Implement Your Risk-Management Program

The next step in risk management is to implement the risk-handling methods you have chosen. For most households, this means buying insurance to transfer and reduce risk. This involves selecting types of policies and coverages, dollar amounts of coverage, and sources of insurance protection. Always remember that your goal is to "buy" the insurance you need at a fair price. Do not let yourself be "sold" more or less insurance coverage than you need at unnecessary prices.

Renters need insurance too.

Tom Carter/PhotoEdit

People often wonder what types of insurance to buy and how much coverage they should have. You should use the maximum possible loss as a guide for the dollar amount of coverage to buy. This way of thinking makes use of the **large-loss principle** (A basic rule of risk management that encourages us to insure the risks that we cannot afford and retain the risks that we can reasonably afford.) , which states: "Insure the risks that you cannot afford and retain the risks that you can reasonably afford." In other words, pay for small losses out of your own pocket and purchase as much insurance as necessary to cover large, catastrophic losses that might ruin you financially. The example earlier of an auto accident that injures a heart surgeon would bring you such financial ruin because a court would hold you responsible for those losses. Consequently, you would want high dollar amounts of liability coverage on your auto insurance.

Step 5: Evaluate and Adjust Your Program

The final step in risk management entails periodic review of your risk-management efforts. The risks people face in their lives change continually. Therefore, no risk-management plan should be put in place and then ignored for long periods of time. An annual review is certainly important but also check your insurance needs when you move, make a major purchase, or if your family situation changes. Many people simply keep old insurance policies that no longer fit their needs (too little or too much coverage) and then find they are inappropriately covered when a loss occurs.

Concept Check 10.1

1. Distinguish between pure risk and speculative risk.
2. Explain the distinctions between risk and odds.
3. Distinguish among the five common risk exposures that most people face.
4. Describe the five steps of risk management.
5. When considering likelihood of loss and severity of loss, explain which one of these two concepts is more important when deciding whether to buy insurance and why.

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Chapter 10: Managing Property and Liability Risk: 10.2 Understanding How Insurance Works
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10.2 Understanding How Insurance Works

Learning Objective 2 - Explain how insurance works to reduce risk.

Insurance (Mechanism for transferring and reducing pure risk through which a large number of individuals share in the financial losses suffered by members of the group as a whole.) is a mechanism for transferring and reducing pure risk through which a large number of individuals share in the financial losses suffered by members of the group as a whole. Insurance protects each individual in the group by replacing an uncertain—and possibly large—financial loss with a certain but comparatively small fee called the **premium** (The fee paid for insurance.) . Insurance premiums are paid for in advance and have four components:

1. The individual's share of the group's losses
2. A share of the company's expenses for administering the insurance plan
3. Insurance company reserves set aside to pay future losses
4. Profit when the plan is administered by a profit-seeking company

The **insurance policy** (Contract between the person buying insurance (the insured) and the insurance company (the insurer).) is the contract between the person buying insurance (the **insured**) and the insurance company (the **insurer**). It contains language that describes the rights and responsibilities of both parties. Most people do not take the time to read and understand their insurance policies. As a result, insurance remains one of the least understood purchases people make. You can do a much better job of managing your risks if you understand the basic terms and concepts used in the field of insurance, and reading this chapter will improve your understanding.

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Chapter 10: Managing Property and Liability Risk: 10.2a Hazards Make Losses More Likely to Occur
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10.2a Hazards Make Losses More Likely to Occur

A **hazard** (Any condition that increases the probability that a peril will occur.) is any condition that increases the probability that a peril will occur. Driving under the influence of alcohol and/or texting represent especially dangerous hazards. Three types of hazards exist:

- A **physical hazard** is a particular characteristic of the insured person or property that increases the chance of loss. An example of a physical hazard is high blood pressure in a person covered by health insurance.
- A **morale hazard** exists when a person is indifferent to a peril. For example, a morale hazard exists if the insured party, knowing that theft insurance will pay for the loss, becomes careless about locking doors and windows.
- A **moral hazard** relates to the possibility that the insured person will want or even cause a peril to occur in order to collect reimbursement from the insurance company.

Insurance companies often limit or deny coverage if a loss occurs as a result of a morale or moral hazard. An investigation often reveals the truth.

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Chapter 10: Managing Property and Liability Risk: 10.2b Only Fortuitous and Financial Losses Are Insurable
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10.2b Only Fortuitous and Financial Losses Are Insurable

Certain minimum requirements must be met for a loss to be considered insurable—in particular, the loss must be fortuitous and financial. **Fortuitous losses** are unexpected in terms of both their timing and their magnitude. A loss caused by a lightning strike and fire to your home is fortuitous; a loss caused by a decline in the market value of your home is not because it is reasonable to expect home values to rise and fall over time. A **financial loss** is any decline in the value of income or assets in the present or future. Financial losses can be measured objectively in dollars and cents.

Financial Power Point

Your Credit Report Affects Your Insurance Rates

It is common for insurance companies to use an applicant's credit rating to provide information in order to help set their premiums. This is another reason for maintaining good credit and for making sure your credit bureau files are accurate!

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10.2c The Principle of Indemnity Limits Insurance Payouts

The **principle of indemnity** (Insurance will pay no more than the actual financial loss suffered.) states that insurance will pay *no more* than the actual financial loss suffered. For example, an automobile insurance policy will pay only the actual cash value of a stolen automobile. This principle prevents a person from gaining financially from a loss (certainly a moral hazard). The principle of indemnity *does not* guarantee that insured losses will be totally reimbursed. Every policy includes **policy limits** (Specify the maximum dollar amounts that will be paid under the policy.) that specify the maximum dollar amounts that will be paid under the policy. As a result, insurance purchasers must carefully select policy limits sufficient to cover their potential losses.

Financial Power Point

Full Coverage Insurance Is a Myth

Every insurance policy has limits. There is no such thing as "full coverage" insurance—because there is always the possibility that a loss will exceed the limits on a policy.

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Chapter 10: Managing Property and Liability Risk: 10.2d Ways to Pay Less for Insurance and Still Maintain Sufficient Coverage
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10.2d Ways to Pay Less for Insurance and Still Maintain Sufficient Coverage

Some features of insurance policies can lower your premiums without significantly reducing the protection offered. These features include deductibles, coinsurance, hazard reduction, and loss reduction.

1. **Pay the first dollars of a loss yourself. A deductible** is an initial portion of any loss that must be paid before the insurance company will provide coverage. For example, automobile collision insurance often includes a $500 deductible and that means that the first $500 of loss to the car must be paid by the insured. The insurer then pays the remainder of the loss, up to the limits of the policy. The higher the deductible, the more you will save on your premium.

2. **Pay a share of any loss yourself.** **Coinsurance** (Method by which the insured and the insurer share proportionately in the payment for a loss.) is a method by which the insured and the insurer share proportionately in the payment for a loss. For example, a health insurance policy may require that the insured pay 20 percent of a loss and the insurer pay the remaining 80 percent. Substantial premium reductions can be realized through coinsurance, but you must be prepared to pay your share of losses. The following **deductible and coinsurance reimbursement formula** can be used to determine the amount of a loss that will be reimbursed when the policy includes both a deductible and a coinsurance clause:

$$R = (1 - CP)(L - D)$$

(10.1)

where

$$\begin{aligned} \boldsymbol{R} &= \text{Reimbursement} \\ \boldsymbol{CP} &= \text{Coinsurance percentage required of the insured} \\ \boldsymbol{L} &= \text{Loss} \\ \boldsymbol{D} &= \text{Deductible} \end{aligned}$$

As an example, assume you have a health insurance policy with a $100 deductible per hospital stay and a 20 percent coinsurance requirement. If the hospital bill is $1350, the reimbursement will be $1000, calculated as follows:

$$\begin{aligned} \boldsymbol{R} &= (1.00 - 0.20)(\$1350 - \$100) \\ &= (0.80)(\$1250) \\ &= \$1000 \end{aligned}$$

3. **Reduce the chances that a loss will occur. Hazard reduction** is action taken by the insured to reduce the probability of a loss occurring. Quitting smoking is an example of hazard reduction related to life and health insurance.

4. **Reduce the dollar amount of a loss. Loss reduction** is action taken by the insured to lessen the severity of loss if a peril occurs. Smoke alarms and fire extinguishers in the home are examples of loss reduction efforts. These items will not prevent fires, but their use may lead to less severe damage.

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Chapter 10: Managing Property and Liability Risk: 10.2e Risk Is Reduced for the Insurer through the Law of Large Numbers
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10.2e Risk Is Reduced for the Insurer through the Law of Large Numbers

Insurance consists of two basic elements:

(1) the reduction of risk and

(2) the sharing of losses.

When you buy insurance, you exchange the uncertainty of a potentially large financial loss for the certainty of a fixed insurance premium, thereby reducing your risk. As the former baseball player Yogi Berra once said, "It is tough to make predictions, especially about the future." But predictions are much easier for an insurance company than for an individual. This is because risk is reduced for the insurer through the **law of large numbers** (As the number of members in a group increases, predictions about the group's behavior become increasingly accurate.) : As the number of members in a group increases, predictions about the group's behavior become increasingly more accurate. This greater accuracy decreases uncertainty and, therefore, risk.

Did You Know?

How to Read an Insurance Policy

Insurance policies do not invite casual reading. Consequently, many people neglect to thoroughly examine their policies until a loss occurs, only to find that they had misunderstood the terms of the agreement. You can avoid such problems by systematically reading a policy before you purchase it, focusing on eight points:

1. **Perils covered.** Some policies list only the perils that are covered; others cover all perils except those listed. The definition of certain perils may differ from that used in everyday language.
2. **Property covered.** Like perils, the property covered under a policy may be listed individually, or only the excluded property may be listed. When the property is listed individually, any new acquisitions must be added to the policy.
3. **Types of losses covered.** Three types of property losses can occur: (a) the loss of the property itself, (b) extra expenses that may arise because the property is rendered unusable for a period of time, and (c) loss of income if the property was used in the insured's work.

4. **People covered.** Insurance policies may cover only certain individuals. This information usually appears on the first page of the policy but may be changed subsequently in later sections.

5. **Locations covered.** Where the loss occurs may have a bearing on whether it will be covered. It is especially important to know which locations are not covered.

6. **Time period of coverage.** Policies are generally written to cover specific time periods. Restrictions may exclude coverage during specific times of the day or certain days of the week or year.

7. **Loss control requirements.** Insurance policies often stipulate that certain loss control efforts must be maintained by the insured. For example, coverage for a vehicle may be denied if the owner knowingly allows it to be driven by an unlicensed person.

8. **Amount of coverage.** All insurance policies specify the maximum amount the insurer will pay for various types of losses.

The information on these eight points may be spread throughout a policy. In fact, coverage that appears to be provided in one location actually may be denied elsewhere. Carefully review the entire policy to determine the protection it provides. If necessary, telephone the salesperson or company to obtain clarification.

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Chapter 10: Managing Property and Liability Risk: 10.2f Each Insured Benefits Even if One Does Not Suffer a Loss
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10.2f Each Insured Benefits Even if One Does Not Suffer a Loss

Individual insurance purchasers benefit regardless of whether they actually suffer a loss because of the reduction of risk. This is the essence of insurance. Reduced risk gives one the freedom to drive a car, own a home, start a business, and plan financially for the future with the knowledge that some unforeseen event will not result in financial disaster.

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10.2g How Companies Select among Insurance Applicants

The purchase of insurance begins with an offer by the purchaser in the form of a written or oral policy application. The insurer typically issues a temporary insurance contract, called a **binder**, which is replaced at a later date with a written policy. The application then goes through a process of **underwriting**—that is, the insurer's procedure for deciding which insurance applicants to accept. To describe the process of underwriting, it is necessary to first understand how insurance rates are set.

An **insurance rate** is the price charged for each unit of insurance coverage. Rates represent the average cost of providing coverage to various **classes of insureds**. These classes consist of insureds who share similar characteristics. For example, automobile insurance policyholders may be classified by age, gender, marital status, and driving record, as well as by the make and model of vehicle that they drive.

When underwriters receive an application, they assign the applicant to the appropriate class. They then determine whether the rates established for that class are sufficient to provide coverage for that specific applicant. Underwriters divide insurance applicants into four groups:

1. ***Preferred*** applicants have lower-than-average loss expectancies and save money because they typically qualify for lower premiums.
2. ***Standard*** applicants have average loss expectancies for their class and pay the standard rates.
3. ***Substandard*** applicants have higher-than-average loss expectancies and may be charged higher premiums and have restrictions placed on the types or amounts of coverage they may purchase.
4. ***Unacceptable*** applicants have loss expectancies that are much too high and are rejected.

You might save money by confirming with your insurance agent that you have been placed in the proper class for premium-determination purposes.

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