

Property and Liability Insurance Principles

SECOND EDITION

21
INS

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Foreword

The American Institute for Chartered Property Casualty Underwriters and the Insurance Institute of America are independent, nonprofit, educational organizations serving the needs of the property and liability insurance business. The Institutes develop a wide range of programs—curricula, study materials, and examinations—in response to the educational requirements of various elements of the business.

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The Institutes began publishing textbooks in 1976 to help students meet the national examination standards. Since that time, we have produced more than eighty individual textbook volumes. Despite the vast differences in the subjects and purposes of these volumes, they all have much in common. First, each book is specifically designed to increase knowledge and develop skills that can improve job performance and help students achieve the educational objectives of the course for which it is assigned. Second, all of the manuscripts of our texts are widely reviewed before publication, by both insurance business practitioners and members of the academic community. In addition, all of our texts and course guides reflect the work of Institute staff members. These writing or editing duties are seen as an integral part of their professional responsibilities, and no one earns a royalty based on the sale of our texts. We have proceeded in this way to avoid even the appearance of any conflict of interests. Finally, the revisions of our texts often incorporate improvements suggested by students and course leaders.

We welcome criticisms of and suggestions for improving our publications. It is only with such constructive comments that we can hope to improve the quality of our study materials. Please direct any comments you may have on this text to the Curriculum Department of the Institutes.

Norman A. Baglini, Ph.D., CPCU, CLU
President and Chief Executive Officer

Preface

This is the second edition of a textbook prepared specifically for the Program in General Insurance of the Insurance Institute of America. It discusses property and liability insurance principles and is designed to be used in conjunction with the course guide for INS 21 to help students prepare for the national examination.

The primary goal of this text, of course, is to enable insurance practitioners to become familiar with the principles that underlie property and liability insurance. It provides the foundation for studying the other two courses in the Program in General Insurance: INS 22—Personal Insurance and INS 23—Commercial Insurance. Students who successfully complete these three courses are awarded the IIA Certificate in General Insurance and have taken a major step along the path of continuing professional development.

The text begins with a discussion of the three separate aspects of insurance, that is, insurance as a transfer technique, a business, and a contract. Chapter 2 discusses the various providers of insurance and regulation of the insurance business. Chapters 3 through 6 provide more detail about the business aspect of insurance by examining insurance marketing, underwriting, claims adjusting, and the financial performance of insurers.

Chapter 7 discusses risk management. Because insurance can have a major role in risk management programs, this chapter serves as a bridge between the discussions of insurance as a business and insurance as a contract.

Chapters 8 through 12 examine insurance as a contract. The discussion in Chapter 8 deals with insurance policies in general and leads into the more detailed discussions of property and liability loss exposures and policy provisions in the remaining chapters.

The policy provisions that are quoted throughout this text are from insurance policies developed by the Insurance Services Office, Inc.

Several people within the insurance business provided valuable assistance by reviewing revised chapters for this edition. We are grateful to the following reviewers for their assistance:

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We accept responsibility for any errors or omissions in this textbook. We ask that if you detect an error or wish to comment on the text or make suggestions for future editions that you write to the Curriculum Department of the Institute. This and other texts cannot be improved if you, our students and course leaders, do not tell us how we can make them better.

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Chapter 1

Insurance: What Is It?

Every person, family, and business organization needs insurance of some type to protect assets or, perhaps, to satisfy a contractual obligation. It is commonly said that “everyone needs insurance,” but what exactly is insurance?

Insurance is actually three things. First, insurance is a transfer technique whereby one party—the insured—transfers the chance of financial loss to another party—the insurance company, or insurer. Second, it is a business and, as such, needs to be conducted in a way that provides a reasonable profit for its owners. Third, it is a contract between the insured and the insurer that states what financial consequences of loss are transferred and expresses the insurer’s promise to pay for those consequences.

Insurance as a Transfer Technique

Insurance is a system that enables a person, family, or business organization to transfer the financial consequences of a loss to an insurance company. The insurance company, in turn, pays the insured for covered losses and distributes the costs of losses among all insureds (that is, all insureds share the cost of a loss). Thus, the key elements of insurance are **transfer** and **sharing**.

Transferring the Financial Consequences of Loss

By transferring the financial consequences of their losses to insurance companies, insureds exchange the possibility of a large loss for the certainty of a much smaller, periodic payment (the insured’s **premium** for insurance coverage). The

transfer is accomplished through insurance policies (also called insurance contracts). An **insurance policy** is a contract that states the rights and duties of the insurance company and the insured with regard to the transfer of the financial consequences of loss exposures.

Sharing the Costs of Losses

The second element of insurance, sharing, requires the insurance company to “pool” the premiums paid by insureds into a loss fund. Insureds who incur covered losses are paid from this fund, and the total cost of losses is thereby spread among all insureds. Insurance companies predict future losses and expenses to determine how large the loss fund should be. The law of large numbers, the foundation of insurance operations, enables insurers to make these predictions.

The **law of large numbers** is a mathematical principle. According to the law of large numbers, when the number of similar, independent exposure units increases, the relative accuracy of predictions about future outcomes based on these exposure units also increases. (Exposure units, such as cars and houses, are independent if they are not subject to the same event. The future outcomes that insurance companies want to predict are losses.) Because insurance companies have large numbers of independent exposure units (the cars and houses of all their insureds, for example), they can use the law of large numbers to predict the number of losses that all of the exposure units combined are likely to experience.

A homeowner who is uncertain, for example, if a fire will damage his or her home transfers this uncertainty to an insurance company. The insurance company, however, insures thousands of homes whose owners face the same uncertainty. Because there is such a large number of homes, the insurance company can, with a great deal of accuracy, predict the number of homes that will be damaged by fire during a given period of time. Based on this prediction, the insurance company is able to determine the amount of premiums that need to be paid in order for the insurance company to have an adequate loss fund to pay for the losses.

There would be no need to transfer the financial consequences of a loss to an insurance company, however, if there were no exposures to loss, that is, no possibility that losses would occur. A **loss exposure** is a condition or situation that presents a possibility of financial loss. It is not necessary for a loss to occur for there to be a loss exposure; there only needs to be the *possibility* of a financial loss. Every loss exposure has three elements: (1) the item subject to loss; (2) the peril or perils that might cause a loss to the item; and (3) the financial consequences of a loss if it occurs.

Types of Loss Exposures

When a fire swept through the ballroom and the lower floors of a crowded hotel, more than two hundred hotel guests and employees were killed or injured. All of the hotel's rooms were booked at the time of the fire, and it was alleged that the number of people occupying the ballroom exceeded its legal capacity. It was discovered that the fire was started by disgruntled former employees. Regardless of the cause of the fire, however, the hotel owners had not taken proper precautions to deal with a fire emergency. For example, the owners had not installed an automatic sprinkler system, there were not enough fire walls, exits were unlighted, and there was no emergency plan for the safe evacuation of occupants of the hotel.

The hotel fire can be used to illustrate the four major types of loss exposures that are useful in identifying and categorizing potential losses. Loss exposures can give rise to property losses, net income losses, liability losses, and personnel or human losses.

Property Loss Exposures

Property includes real property and personal property. **Real property** includes land as well as buildings and other structures attached to the land or imbedded in it. Therefore, a house, a storage shed, a swimming pool, a factory building, a flagpole, and an underground sewer pipe are all items of real property, as is the land where each is situated. **Personal property** is all tangible or intangible property that is not real property. The inventory of a retail merchant, furniture and fixtures in a restaurant, equipment and machinery in a factory building, the contents of a dwelling, computers, money, securities, automobiles, patents, and copyrights are examples of personal property.

In the hotel fire example, damage to the building and the personal property of the owners and others totaled several million dollars. For example, the hotel suffered structural damage that had to be repaired. Much of the furniture and carpeting in the hotel was damaged or destroyed and had to be replaced. The hotel guests' clothing and other personal property that were destroyed also had to be replaced.

Net Income Loss Exposures

Property damage can also cause net income losses. **Net income** is income (or revenue) minus expenses during a given time period. All individuals, families, and business organizations must generate an excess of income over expenses in order to remain financially viable. A net income loss can be the result of a reduction in income (or revenue), an increase in expenses, or both. The net

income losses of a business often greatly exceed the property loss that caused it, as in the hotel fire example.

While the damaged rooms in the hotel were being cleaned and repaired, revenue decreased because guest rooms were empty, social and business functions were canceled, and restaurants and shops were closed. Some of the revenue was probably permanently lost because of negative publicity about the fire. The hotel may also have incurred increased expenses for overtime pay for employees.

Liability Loss Exposures

A liability loss exposure might give rise to a claim for damages against a person or business organization for negligence or for other alleged wrongdoing. Some liability claims result in a lawsuit, and even if the lawsuit is groundless, substantial fees might need to be paid to defend against the suit. Liability claims might result from bodily injury, property damage, humiliation, libel, slander, loss of reputation, and other forms of personal injury. In insurance, the term **personal injury** refers to injury other than bodily injury and includes defamation (such as libel or slander), false imprisonment, false eviction, and similar actions.

In the hotel fire example, the liability losses that resulted from the fire included payments for medical expenses, rehabilitation costs, and the pain and suffering experienced by the guests, employees, and members of the public injured in the fire. Liability losses would also include payments for damage to property belonging to guests and payments to survivors of people killed in the fire.

Personnel or Human Loss Exposures

Personnel or human loss exposures can cause financial loss because of death, disability, or unemployment. The term **personnel losses** generally refers to the losses of a business organization because of the death, disability, retirement, or resignation of its employees. For example, a business organization could face a financial loss if a key executive, sales representative, or product developer died, became disabled, or resigned and could not be readily replaced.

The term **human losses** refers to the effect of death, disability, or unemployment on individuals or families. For example, a family would face a loss of income if a breadwinner died or became disabled or unemployed.

In the case of the hotel fire, if a key employee, such as the master chef, died in the fire, the hotel owners would experience a personnel loss. The chef's family, and the families of others killed or injured by the fire, would suffer a human loss.

Ideally Insurable Loss Exposures

Insurance contracts cover events that may or may not happen. If the events do occur, a financial loss results. Therefore, each party to the contract receives some benefit from the transaction. By transferring the potential financial consequences of the uncertain event to the insurance company, the insured reduces or eliminates the possibility of financial loss. By charging a premium in return, the insurance company gains the opportunity to make a profit if it handles a volume of such transactions efficiently. The transaction is advantageous to both parties, however, only if the loss exposure has certain characteristics that make it ideally insurable from the insurer's standpoint. Insurance companies generally do not wish to provide insurance for the financial consequences of loss exposures that do not have those characteristics. An ideally insurable loss exposure has the following characteristics:

- A large number of similar exposure units
- Losses that are accidental
- Losses that are definite and measurable
- Losses that are not catastrophic
- Losses that are economically feasible to insure

Large Number of Similar Exposure Units

An ideally insurable loss exposure must be common enough that the insurer can pool a large number of homogeneous, or similar, exposures. This characteristic is essential, because it enables the insurer to predict losses accurately and to determine appropriate premiums.

Loss exposures that satisfy this requirement, such as possible damage to homes or automobiles, allow the insurance company to take advantage of the law of large numbers. The insurance company can determine appropriate premiums based on the experience of thousands of similar exposures and make more exact predictions about losses.

On the other hand, it would be difficult to predict the number of losses to satellites in space each year, since there are relatively few exposure units. Moreover, each loss could drastically affect the profitability of an insurance company and the insurance business as a whole. The inability of insurance companies to predict losses and, thus, to determine adequate premiums makes most insurers reluctant to insure unusual loss exposures such as those represented by space satellites.

Losses That Are Accidental

An ideally insurable loss exposure also involves a potential loss that is accidental in nature. If the insured in some way has control over whether the

loss occurs, the insurance company is at a disadvantage because the insured may have an incentive to cause a loss. If losses are not accidental, the insurance company is unable to calculate an appropriate premium because the chance of a loss is likely to increase as soon as a policy is issued. If the loss exposure involves only accidental losses, the insured and the insurer are on equal ground when they agree to the insurance transaction.

Definite, Measurable Losses

To be insurable, a loss must have a definite time and place of occurrence, and the amount of the loss must be measurable in dollars. Insurable loss exposures must be definite and measurable for practical reasons. If the occurrence of a loss cannot be definitely determined and measured, it becomes extremely difficult to write an insurance policy defining when to pay a claim or how much to pay. Also, losses are impossible to predict if they cannot be measured.

Losses That Are Not Catastrophic

Pooling exposure units assumes that the exposure units are independent. Independence means that a loss suffered by one insured does not affect any other insured. If this were not so, a single catastrophe could cause losses to a sizable proportion of insureds at the same time. For example, if an insurance company insured all of the homes and businesses in a midwestern city, the insurance company would probably suffer a financial disaster if a tornado leveled the city. It is unlikely that the insurer would have the financial resources to pay all of the claims of all the insureds affected by the tornado.

This does not mean that tornado damage to property is not insurable. Coverage for windstorm damage is readily available throughout the country. However, an insurance company avoids possible financial disaster by managing its pool of insureds in such a way that it does not have a large proportion of its insureds exposed to loss in any one event.

For tornado coverage, the insurance company must diversify the homes and businesses it insures so that it does not have a heavy concentration of insureds in any one geographic area. In this way, the insurer maintains as much independence as possible among its policyholders. If each of several insurers issued a relatively small number of policies in the city devastated by the tornado, no one insurer would face financial ruin.

Losses That Are Economically Feasible To Insure

Insurance companies seek to insure only loss exposures that are economically feasible. Because of this constraint, loss exposures involving small losses and those involving a high probability of loss are generally considered uninsurable.

It does not make sense to write insurance covering small losses when the expense of providing the insurance probably exceeds the amount of potential losses. Insurance to cover the disappearance of office supplies, for example, could require the insurer to spend more to issue claim checks than it would to pay for the claims. It also does not make sense to write insurance to cover losses that are almost certain to occur. In that situation, the premium would probably be as high as or higher than the potential amount of the loss.

Benefits of Insurance

Insurance provides many benefits for individuals, families, and business organizations. Because insurance pays for the financial consequences of losses, it reduces the financial uncertainty caused by not knowing when and if a loss will occur. Other benefits are also derived from payments for losses. Insurers have a financial incentive to control losses, and society as a whole benefits from the loss control activities of insurance companies. Insurance also allows insureds to use resources more efficiently, provides a basis for credit, enables insureds to satisfy legal and business requirements, and helps to solve social problems.

Payment for Losses

When an insurance company pays an insured for a loss, the company has indemnified the insured. To **indemnify** means to restore a party who has had a loss to the same financial position that was held before the loss. The primary role of insurance is to indemnify individuals, families, and business organizations that incur losses.

The value of payment for losses can be recognized by considering the aftermath of a loss for those who have no insurance. If the home of a family with no insurance is destroyed by fire, the family may be left without money, clothes, and a place to live. A business can be bankrupted as the result of a liability judgment it cannot pay, and the employees and owners of the business will suddenly be unemployed.

Insurance provides some measure of financial security for events such as those described by paying claims to indemnify insureds. Consequently, insurance provides stability for individuals, families, and business organizations.

Reduction of Uncertainty

Because insurance provides financial compensation for covered losses, the uncertainty created by many loss exposures is greatly reduced through the use of insurance. A family's financial concerns, for example, would probably center around the death of a breadwinner or the destruction of its home. Such