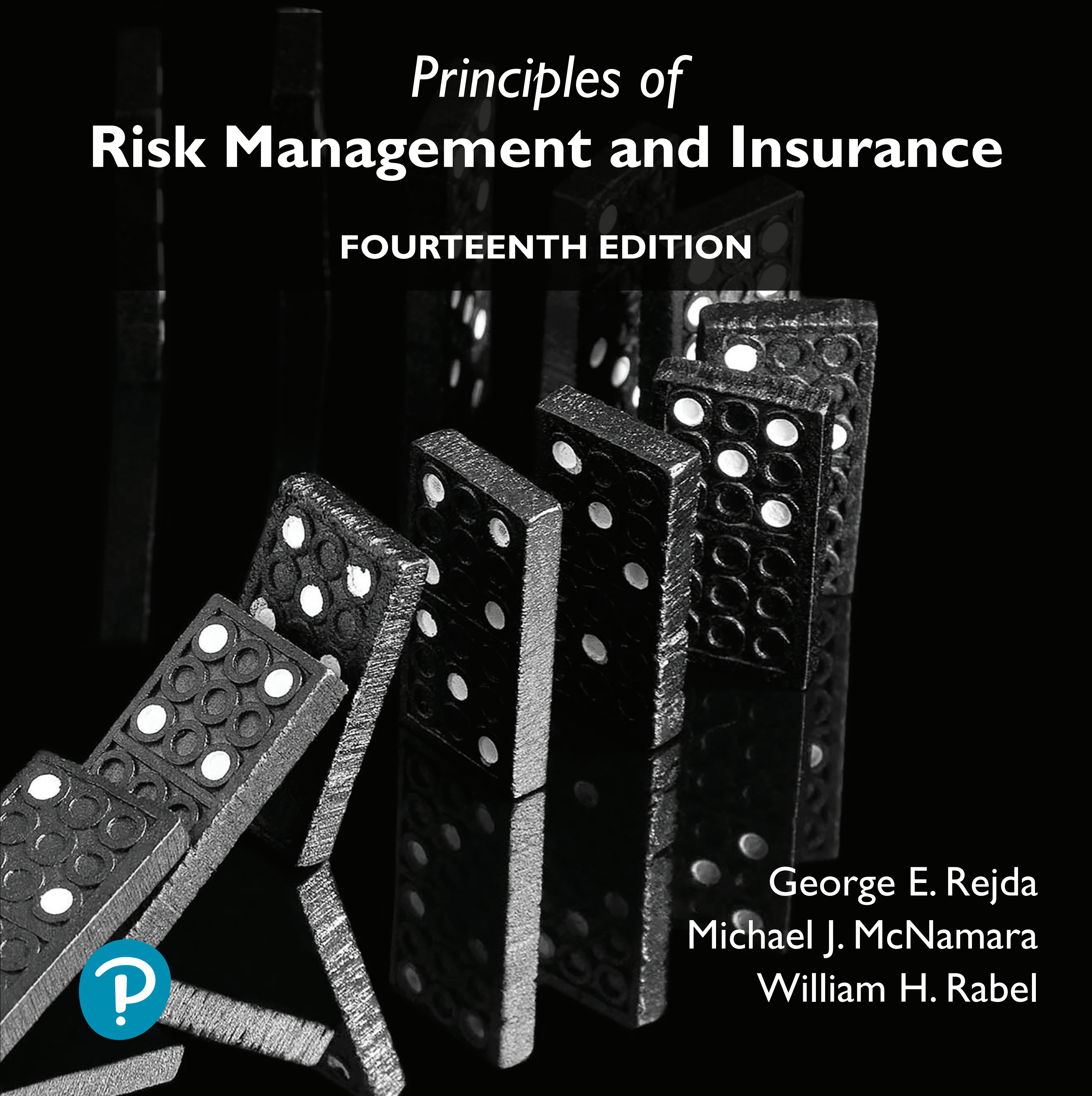
GLOBAL EDITION

Principles of
Risk Management and Insurance

FOURTEENTH EDITION



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requirements of an insurable risk discussed in Chapter 2. For example, most property and casualty insurance contracts exclude losses for potential catastrophic events such as war or exposure to nuclear radiation. A health insurance contract may exclude losses within the direct control of the insured, such as an intentional, self-inflicted injury. Finally, predictable declines in the value of property, such as wear and tear and inherent vice, are not insurable. "Inherent vice" refers to the destruction or damage of property without any tangible external force, such as the tendency of fruit to rot and the tendency of diamonds to crack.

Exclusions are also used because extraordinary hazards are present. A hazard is a condition that increases the chance of loss or severity of loss. Because of an extraordinary increase in hazard, a loss may be excluded. For example, the premium for liability insurance under the personal auto policy is based on the assumption that the car is used for personal and recreational use and not as a taxi. The chance of an accident, and a resulting liability lawsuit, is much higher if the car is used as a taxi for hire. Therefore, to provide coverage for a taxi at the same rate charged for a family car could result in inadequate premiums for the insurer and unfair rate discrimination against other insureds who do not use their vehicles as a taxi.

Exclusions are also necessary because coverage can be better provided by other contracts. Exclusions are used to avoid duplication of coverage and to limit coverage to the policy best designed to provide it. For example, a car is excluded under a homeowners policy because it is covered under the personal auto policy and other auto insurance contracts. If both policies covered the loss, there would be unnecessary duplication.

In addition, certain property is excluded because of moral hazard or difficulty in determining and measuring the amount of loss. For example, homeowners insurance policies drafted by the Insurance Services Office limit the coverage of money to $200. If unlimited amounts of money were covered, fraudulent claims would increase. Also, loss-adjustment problems in determining the exact amount of the loss would also increase. Thus, because of moral hazard, exclusions are used.

Exclusions are also used to deal with attitudinal hazard (morale hazard). Attitudinal hazard is carelessness or indifference to a loss because of the presence of insurance, which increases the frequency or severity of loss. Exclusions force individuals to bear certain losses that result from their own carelessness. For example, losses due to freezing of a plumbing or heating system in a dwelling or household appliance is not covered unless the named insured uses reasonable care to maintain heat in the building, or the water supply is shut off and all systems and appliances are drained.

Finally, exclusions are used because the coverage is not needed by the typical insured. For example, most homeowners do not own private planes. To cover aircraft as personal property under a homeowners policy would be grossly unfair to most insureds, who do not own planes, because premiums would be substantially higher.

Conditions

Conditions are another important part of an insurance contract. **Conditions** *are provisions in the policy that qualify or place limitations on the insurer's promise to perform*. In effect, the conditions section imposes certain duties on the insured. If the policy conditions are not met, the insurer can refuse to pay the claim. Common policy conditions include notifying the insurer if a loss occurs, protecting the property after a loss, preparing an inventory of damaged personal property, and cooperating with the insurer in the event of a liability suit.

Miscellaneous Provisions

Insurance contracts also contain a number of miscellaneous provisions. In property and casualty insurance, miscellaneous provisions include cancellation, subrogation, requirements if a loss occurs, assignment of the policy, and other-insurance provisions. In life and health insurance, typical miscellaneous provisions include the grace period, reinstatement of a lapsed policy, and misstatement of age. Details of these provisions are discussed later in the text when specific insurance contracts are analyzed.

DEFINITION OF "INSURED"

An insurance contract must identify the person or parties who are insured under the policy. For ease in understanding, the meaning of "insured" can be grouped into the following categories:

- Named insured
- First named insured
- Other insureds
- Additional insureds

Named Insured

The **named insured** *is the person or party named on the declarations page of the policy*. The named insured can be one or more persons or parties. For example, Ron and Kay Lukens may be specifically listed as named insured on the declaration page of their homeowners policy.

The words "you" and "your" appear in many policies and refer to the named insured shown in the declarations. Thus, throughout the entire policy, "you" or "your" refers to the named insured.

First Named Insured

When more than one person or party is named on the declarations page, the order of names is important. The **first named insured** *is the first name that appears on the declarations page of the policy as an insured*. For example, Tim Jones and Bob Brown own a bookstore and are listed as named insureds under a commercial property policy. Tim is the first named insured.

The first named insured has certain additional rights and responsibilities that do not apply to other named insureds. Additional rights include the right to a premium refund and the receipt of a cancellation notice. However, the first named insured is responsible for the payment of premiums and for complying with notice-of-loss requirements.

Other Insureds

Other insureds *are persons or parties who are insured under the named insured's policy even though they are not specifically named in the policy*. For example, a homeowners policy covers resident relatives of the named insured or any person under age 21 who is in the care of an insured. A homeowners policy also covers resident relatives under age 24 who are full-time students and away from home. Likewise, in addition to the named insured, the personal auto policy also covers the named insured's resident relatives and any other person using the auto with the permission of the named insured.

Additional Insureds

An **additional insured** *is a person or party who is added to the named insured's policy by an endorsement*. As a result, an additional insured acquires coverage under the named insured's policy. For example, Ken owns farmland that is leased to a tenant. Ken is concerned about possible legal liability if the tenant injures someone. Ken can request to be added to the tenant's farm liability policy as an additional insured.

ENDORSEMENTS AND RIDERS

Insurance contracts frequently contain **endorsements and riders**. The terms *endorsements* and *riders* are often used interchangeably and mean the same thing. *In property and casualty insurance, an endorsement is a written provision that adds to, deletes from, or modifies the provisions in the original contract. In life and health insurance, a rider is a provision that amends or changes the original policy*.

There are numerous endorsements in property and casualty insurance that modify, extend, or delete provisions found in the original policy. For example, a homeowners policy excludes coverage for earthquakes. However, an earthquake endorsement can be added that covers damage from an earthquake or from earth movement.

In life and health insurance, numerous riders can be added that increase or decrease benefits, waive a condition of coverage present in the original policy, or amend the basic policy. For example, a waiver-of-premium rider can be added to a life insurance policy. If the insured becomes totally disabled, all future premiums are waived after an elimination period of six months, as long as the insured remains disabled according to the terms of the rider.

An endorsement attached to a policy generally takes precedence over any conflicting terms in the policy. Also, many policies have endorsements that amend the policy to conform to a given state's law.

DEDUCTIBLES

A deductible is a common policy provision that requires the insured to pay part of the loss. *A* **deductible** *is a provision by which a specified amount is subtracted from the total loss payment that otherwise would be payable*. Deductibles typically are found in property, health, and auto insurance contracts. A deductible is not used in life insurance because the insured's death is always a total loss, and a deductible would simply reduce the face amount of insurance. Also, a deductible generally is not used in personal liability insurance because the insurer must provide a legal defense, even for a small claim. The insurer wants to be involved from the first dollar of loss so as to minimize its ultimate liability for a claim. Also, the premium reduction that would result from a small deductible in personal types of third-party liability coverages would be relatively small.

Purposes of Deductibles

Deductibles have several important purposes. They include the following:

- To eliminate small claims
- To reduce premiums
- To reduce moral hazard and attitudinal hazard

A deductible eliminates small claims that are expensive to handle and process. For each large claim processed, there are numerous small claims, which can be expensive to process. For example, an insurer may incur expenses of $200 or more in processing a $200 claim. Because a deductible eliminates small claims, the insurer's loss-adjustment expenses are reduced.

Deductibles are also used to reduce premiums paid by the insured. Because deductibles eliminate small claims, premiums can be substantially reduced. According to the Insurance Information Institute, increasing the deductible from $200 to $500 for collision and comprehensive coverage in auto insurance may reduce your cost by 15 to 20 percent. Increasing the deductible to $1,000 could reduce your premiums by 40 percent or more. In addition to higher deductibles, Insight 10.1 has other worthwhile suggestions for reducing your auto insurance premiums.

Insurance is not an appropriate technique for paying small losses that can be better budgeted out of personal or business income. Insurance should be used to cover large catastrophic events, such as medical expenses of $500,000 or more from an extended terminal illness. Insurance that protects against a catastrophic loss can be purchased more economically if deductibles are used. Depending on the insured's level of income and ability to pay, higher deductibles generally are preferred rather than smaller ones. The **large-loss principle** is the concept of using insurance premiums to pay for large losses rather than for small losses. The objective is to cover large losses that can financially ruin an individual and exclude small losses that can be budgeted out of the person's income.

Other factors being equal, a large deductible is preferable to a small one. For example, some motorists with auto insurance have policies that contain a $250 deductible for collision losses instead of a $500 or larger deductible. They may not realize how expensive the extra insurance really costs. For example, assume you can purchase collision insurance on your car with a $250 deductible with an annual premium of $1,000, while a policy with a $500 deductible has an annual premium of $800. If you select the $250 deductible over the $500 deductible, you have an additional $250 of collision insurance, but you must pay an additional $200 in annual premiums. Using a simple cost-benefit analysis, you are paying an additional $200 for an additional $250 of insurance, which is a relatively expensive increment of insurance. When analyzed in this manner, larger deductibles are preferable to smaller deductibles.

Finally, deductibles are used by insurers to reduce both moral hazard and attitudinal (morale) hazard. Some dishonest policyholders may deliberately cause a loss in order to profit from insurance. Deductibles reduce moral hazard because the insured may not profit if a loss occurs.

Deductibles are also used to reduce attitudinal (morale) hazard. Attitudinal hazard is carelessness or indifference to a loss, which increases the chance of loss. Deductibles encourage people to be more careful with respect to the protection of their property and prevention of a loss because the insured must bear a part of the loss.

Deductibles in Property Insurance

The following deductibles are commonly found in property insurance contracts:

- Straight deductible
- Aggregate deductible

Straight Deductible With a **straight deductible**, *the insured must pay a certain number of dollars of loss before the insurer is required to make a payment*. Such

INSIGHT 10.1

Will Your Auto Insurance Cover You When You Drive Another Person's Car?

Sharing cars with people is quite common. Students across the world often drive cars that may belong to their parents, their roommates, or other friends. Many employees make use of cars owned by their employers or the company they work for. Will your auto insurance provide liability coverage when you drive another person's car? Likewise, you may give permission to your family member, roommate, friend, or employee to drive your car. Are they covered under your policy? What about a situation where somebody drives your car without permission?

To answer these questions, we must first understand the functions of third-party liability auto insurance and then examine the definition of "insured" that applies to this kind of coverage. The second issue to be considered is legal rules, which could differ between countries.

The primary use of auto liability insurance is to provide financial protection against physical damage and/or bodily injury resulting from traffic collisions and against liability that could also arise from there. In such cases, both parties, the victim and the party responsible for the damages, are protected. The first one can count on compensation for the damages while the second avoids the problem of paying compensation, which could be a large amount and prove to be beyond their financial capacities.

Owing to these elements and their social importance, auto liability insurance is usually compulsory. As it is obligatory, it has to be introduced to legal system through official Acts. The specific terms of vehicle insurance vary with legal regulations in each region. However, we should emphasize that the basic scope of cover, which is the most important, is to protect the injured entity. Thus, in most legal systems, the scope of cover is as wide as possible. Depending on legal systems, you can find detailed definitions of insured or insured peril.

For example, "Insured" could mean "You or any family member for the ownership, maintenance, or use of any auto or trailer." And "Insured peril" could be defined as "the subject of auto third party liability insurance is the legal liability of any person, which is driving a motor vehicle during the policy period and caused damage in connection to the movement of this vehicle."

Due to these solutions, if a car's owner has auto liability insurance, almost each and every person who drives the car is protected. Thus, usually each driver is "insured" under the vehicle owner policy. It includes, but is not limited to, the vehicle owner, family members, friends or roommates, employees, and other persons driving the car with or even without owner's permission (usually, if somebody drives a car without owner's permission and causes a damage, insurer after paying a claim has the right of subrogation against this driver).

SOURCES: Vehicle insurance, https://www.gov.uk/vehicle-insurance/uninsuredvehicles, and Insurance Information Institute, "What Determines the Price of My Auto Insurance Policy?" http://www.iii.org/

a deductible typically applies to each loss. An example can be found in auto collision insurance. For instance, assume that Ashley has collision insurance on her new Toyota, with a $1,000 deductible. If a collision loss is $10,000, she would receive only $9,000 and would have to pay the remaining $1,000 herself.

Aggregate Deductible Commercial insurance contracts sometimes contain an aggregate deductible. *An* **aggregate deductible** *means that all losses that occur during a specified time period, usually a policy year, are accumulated to satisfy the deductible amount.* After the deductible is satisfied, the insurer pays all future losses in full. For example, assume that the policy contains an aggregate deductible of $10,000. Also assume that losses of $1,000 and $2,000 occur, respectively, during the policy year. The insurer pays nothing because the deductible is not met. If a third loss of $8,000 occurs during the same time period, the insurer would pay $1,000. Any other losses occurring during the policy year would be paid in full.

Deductibles in Health Insurance

In health insurance, the deductible can be stated in terms of dollars or time, such as a calendar-year deductible or an elimination (waiting) period.

Calendar-Year Deductible *A* **calendar-year deductible** *is a type of aggregate deductible that is found in individual and group medical expense policies.* Eligible medical expenses are accumulated during the calendar year, and after they exceed the deductible amount, the insurer must then pay the benefits promised under the contract. After the deductible is satisfied during the calendar year, no additional deductibles are imposed on the insured.

Elimination (Waiting) Period A deductible can also be expressed as an elimination period. *An* **elimination (waiting) period** *is a stated period of time at the beginning of a loss during which no insurance benefits are paid.* An elimination period is appropriate for a single loss that occurs over some time period, such as the loss of work earnings. Elimination periods are commonly used in disability-income contracts. For example, disability-income insurance contracts that replace part of a disabled worker's earnings typically have elimination periods of 30, 60, or 90 days, or longer periods.

COINSURANCE

Coinsurance is a contractual provision that often appears in property insurance contracts. This is especially true of commercial property insurance contracts.

Nature of Coinsurance

A **coinsurance clause** *in a property insurance contract encourages the insured to insure the property to a stated percentage of its insurable value. If the coinsurance requirement is not met at the time of loss, the insured must share in the loss as a coinsurer.* The insurable value of the property is the actual cash value, replacement cost, or some other value described in the valuation clause of the policy. If the insured wants to collect in full for a partial loss, the coinsurance requirement must be satisfied. Otherwise, the insured will be penalized if a partial loss occurs.

A coinsurance formula is used to determine the amount paid for a covered loss. The coinsurance formula is as follows:

$$\frac{\text{Amount of insurance carried}}{\text{Amount of insurance required}} \times \text{Loss} = \text{Amount of recovery}$$

For example, assume that a commercial building has an actual cash value of $1,000,000 and that the owner has insured it for only $600,000. If an 80 percent coinsurance clause is present in the policy, the required amount of insurance based on actual cash value is $800,000 (80% × $1,000,000). If a replacement cost policy is used, the required amount of insurance would be based on replacement cost. Thus, if a $100,000 loss occurs, only $75,000 will be paid by the insurer. This calculation can be illustrated as follows:

$$\frac{\$600{,}000}{\$800{,}000} \times \$100{,}000 = \$75{,}000$$

Because the insured has only three-fourths of the required amount of insurance in force at the time of loss, only three-fourths of the loss, or $75,000, will be paid. Because the coinsurance requirement is not met, the insured must absorb the remaining amount of the loss.

When applying the coinsurance formula, two additional points should be kept in mind. First, the amount paid can never exceed the amount of the actual loss even though the coinsurance formula produces such a result. This case could happen if the amount of insurance carried is greater than the minimum required amount of insurance. Second, the maximum amount paid for any loss is limited to the face amount of insurance.

Purpose of Coinsurance

The fundamental purpose of coinsurance is to achieve equity in rating. Most property insurance losses are partial losses rather than total losses. But if everyone insures only for the partial loss rather than for the total loss, the premium rate for each $100 of insurance would be higher. This rate would be inequitable to insureds who want to insure their property to full value. For example, if everyone insures to full value, assume that the pure premium rate for fire insurance is 25 cents for each $100 of insurance, ignoring expenses and the profit allowance of the insurer (see Exhibit 10.1).

However, if each property owner insures only for a partial loss, the pure premium rate will increase from 25 cents per $100 of fire insurance to 40 cents per $100 (see Exhibit 10.2). This rate would be inequitable to property owners who want to insure their buildings to full value. If full coverage is desired, the insured would have to pay a higher rate of 40 cents, which we calculated earlier to be worth only 25 cents. This rate would be inequitable. *So, if the coinsurance requirement is met, the insured receives a rate discount, and the policyholder who is underinsured is penalized through application of the coinsurance formula.*

In property insurance, a coinsurance rate of 80 percent is typically used. However, the premium rate decreases as the coinsurance percentage increases. Thus, the premium rate per $100 of insurance decreases if the coinsurance percentage is increased from 80 percent to 90 percent or to 100 percent.

Exhibit 10.1
Insurance to Full Value

Assume that 2,000 buildings are valued at $200,000 each and are insured to full value for a total of $400 million of fire insurance. The following fire losses occur:

2 total losses	=	$ 400,000
30 partial losses at $20,000 each	=	$ 600,000
Total fire losses paid by insurer	=	$1,000,000
Pure premium rate	=	$1,000,000 / $400,000,000
	=	25 cents per $100 of insurance

Exhibit 10.2
Insurance to Half Value

Assume that 2,000 buildings are valued at $200,000 each and are insured to half value for a total of $200 million of fire insurance. The following fire losses occur:

2 partially insured total losses	=	$200,000
30 partial losses at $20,000 each	=	$600,000
Total fire losses paid by insurer	=	$800,000
Pure premium rate	=	$800,000 / $200,000,000
	=	40 cents per $100 of insurance

Coinsurance Problems

Some practical problems arise when a coinsurance clause is present in a policy. First, inflation can result in a serious coinsurance penalty if the amount of insurance is not periodically increased for inflation. The insured may be in compliance with the coinsurance clause when the policy first goes into effect; however, price inflation could increase the replacement cost of the property. The result is that the insured may not be carrying the required amount of insurance at the time of loss, and he or she will then be penalized if a loss occurs. Thus, if a coinsurance clause is present, the amount of insurance carried should be periodically evaluated to determine whether the coinsurance requirement is being met.

Second, the insured may incur a coinsurance penalty if property values fluctuate widely during the policy period. For example, there may be a substantial increase in inventory values because of an unexpected arrival of a shipment of goods. If a loss occurs, the insured may not be carrying sufficient insurance to avoid a coinsurance penalty. One solution to this problem is *agreed value coverage*, by which the