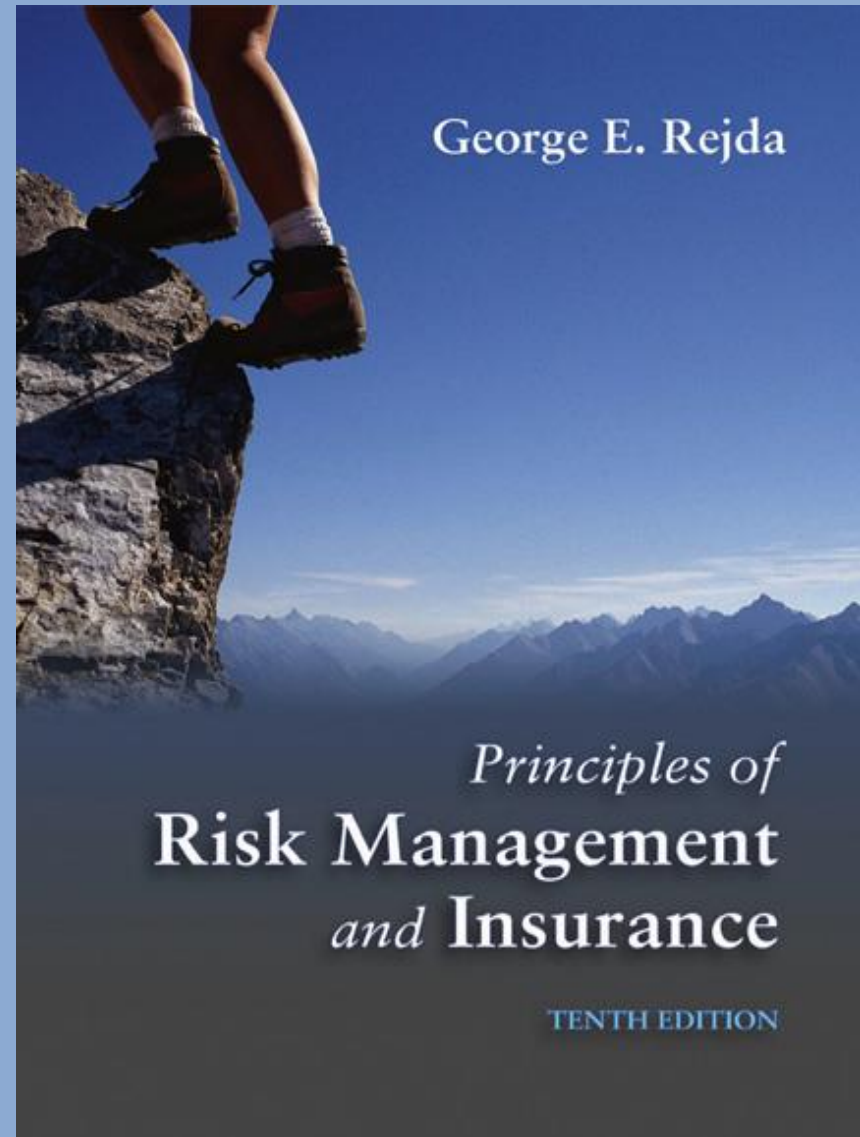


Slahadeen university
College Administration and
Economics
Dep: Finance and Banking
Vehicle and property Insurance
Stage 2
Chapter 1
Insurance
2023 - 2024

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Agenda

- Definition of Insurance
- Basic Characteristics of Insurance
- Requirements of an Insurable Risk
- Adverse Selection and Insurance
- Types of Insurance
- Social Benefits of Insurance

Definition of Insurance

- Insurance is the pooling of fortuitous losses by transfer of such risks to insurers,
- who agree to cover insured for such losses,
- to provide other pecuniary benefits on their occurrence,
- or to render services connected with the risk

What is the meaning of insurance?

Basic Characteristics of Insurance

- **Pooling of losses**
 - **Spreading losses incurred by the few over the entire group**
 - **Risk reduction based on the Law of Large Numbers**
- **Payment of fortuitous losses**
 - **Insurance pays for losses that are unforeseen, unexpected, and occur as a result of chance**

((What is the basic characteristics of the insurance))

Basic Characteristics of Insurance

- Risk transfer
 - A pure risk is transferred from the insured to the insurer, who typically is in a stronger financial position
- Indemnification
 - The insured is restored to his or her approximate financial position prior to the occurrence of the loss

((What is the basic characteristics of the insurance))

Requirements of an Insurable Risk

- **Large number of exposure units**
 - **to predict average loss**
 - **Accidental and involuntary loss**
 - **to control moral hazard**
 - **to assure randomness**
 - **Determinable and measurable loss**
 - **to facilitate loss adjustment**
 - insurer must be able to determine if the loss is covered and if so, how much should be paid.
- ((What are the requirements for insurable risks?))***

Requirements of an Insurable Risk

- **No catastrophic loss**

- **to allow the pooling technique to work**

- exposures to catastrophic loss can be managed** by:

- dispersing coverage over a large geographic area
 - using reinsurance
 - catastrophe bonds

- ((exposures to catastrophic loss can be managed by))*

- **Calculable chance of loss**

- **to establish an adequate premium**

- ((**What are the requirements for insurable risks?**))*

Requirements of an Insurable Risk

- **Economically feasible premium**
 - so people can afford to buy
 - Premium must be substantially less than the face value of the policy
 - **Based on these requirements:**
 - Most personal, property and liability risks can be insured
 - Market risks, financial risks, production risks and political risks are difficult to insure
- ((What are the requirements for insurable risks?))*

Adverse Selection and Insurance

- **Adverse selection is the tendency of persons with a higher-than-average chance of loss to seek insurance at standard rates**
- **If not controlled, adverse selection result in higher-than-expected loss levels**

((Adverse Selection and Insurance explained ?)).

- Adverse selection can be controlled by:
 - careful underwriting (selection and classification of applicants for insurance)
 - policy provisions (e.g., suicide clause in life insurance)
- ((Adverse selection insurance can be controlled by:))***

The idea of insurance

simple example:

Suppose that in the neighborhood of modern residential house in 1000 symmetric in construction, and the value of each house equals \$ 100,000. Each house accident to the possibility of fire. The role of the owners agreed during the meeting to establish a solidarity insurance company. Each house owner \$ 100 pays year installment insurance.

\$100 000 is collected to (100×1000) in the form of premiums of all the owners of the role. In the event of a fire in one of the role is to give the owner of the house and the amount of the loss limit of \$ 100,000 for the purpose of rebuilding the house repairs

Probability Theory and the law of large Number

Probability theory is the basis of a lot of science and knowledge on the measurement of some phenomena and predictions work for it. Theory dealing with random variables Random Variables for the emergence of a certain bidder chance. The possibilities are worth between zero and one, zero value is given as less value to the likelihood of one is given to greater possibilities. For example, it can be said that the football team has a chance to win 70 percent,

Probability Theory and the law of large Number

And the potential loss of 20 percent and 10 percent probability of a tie.

For example, when throwing a coin, the possibility of the appearance of the picture is 50 percent and the possibility of the emergence of writing is 50 percent and the total probability equal to one.

Cost of the loss

If burned in the city of Arbil, 25 homes in 2019 in total 10000 homes in the city. So we can say that the probability of the risk of fire to houses in the city of Erbil is two per thousand (0.0025))

If the market value of the dwelling to be locked by one person is the \$ 80, 000:

The cost of the loss = expected loss value X probability of occurrence of danger ($25 \div 10000 = 0.0025$)

The cost of the loss = \$80 000 X 0.0025

The cost of the loss = \$ 200

The insurance company to add, administrative expenses was \$ 40 target and profit of \$ 60 and to get to the fair premium and the insured must pay \$ 300 installment fair. Fair premium covers the cost of risk, administrative expenses for the organization of the contract and a profit target by the insurance company.

$\$200 + \$40 + \$60 = \300

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probability of occurrence of danger = $\frac{\text{The number of units affected}}{\text{The total number of units is insured}}$

The cost of the loss = expected loss value X probability of occurrence of danger
fair premium = The cost of the loss + administrative expenses + target and profit

The cost of the loss = expected loss value X probability of occurrence of danger

The cost of the loss = \$80 000 X 0.0025

The cost of the loss = \$ 200

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\$200+\$40+\$60=\$300

Expected loss

Example: someone who owns a car and used to go to work and travel times. And assume that there is a likelihood of the occurrence of the damage to the car, as in the table following:

The possibilities	Damage expected
0.50	0\$
0.30	\$ 500
0.10	\$ 1000
0.06	\$ 5000
0.04	\$ 10000

This can be seen table: What is the expected loss ratio?

The possibilities that the total five cases equal to one
(0.50 + 0.30 + 0.06 + 0.10 + 0.04)

The potential loss is less than zero and is undesirable and intolerable 0.50

The biggest potential loss is \$ 10,000 which is undesirable and intolerable 0.04 calculated loss all the possibilities as follows:

The expected loss

$$= 0 \times 0.50 + 0.30 \times 500 + 0.10 \times 1000 + 0.06 \times 5000 + 0.04 \times 10000$$

$$= 0 + 150 + 100 + 300 + 400$$

$$= \text{US } \$ 950$$

This means that the cost of risk is equal to \$ 950

Insurance vs. Gambling

Insurance

- Insurance is a technique for handling an already existing pure risk
- Insurance is socially productive:
 - both parties have a common interest in the prevention of a loss

Gambling

- Gambling creates a new speculative risk
- Gambling is not socially productive
 - The winner's gain comes at the expense of the loser

((What is the difference between Insurance vs. Gambling))

Insurance vs. Hedging

Insurance

- Risk is transferred by a contract
- Insurance involves the transfer of insurable risks
- Insurance can reduce the objective risk of an insurer through the Law of Large Numbers

Hedging

- Risk is transferred by a contract
- Hedging involves risks that are typically uninsurable
- Hedging does not result in reduced risk

((What is the difference between Insurance vs. Hedging))

Types of Insurance

- **Private Insurance**
 - **Life and Health**
 - **Property and Liability**
- **Government Insurance**
 - **Social Insurance**
 - **Other Government Insurance**

((What are the types of insurance?))

Social Benefits of Insurance

- Indemnification for Loss
 - Contributes to family and business stability
- Reduction of Worry and Fear
 - Insured's are less worried about losses
- Source of Investment Funds
 - Premiums may be invested, promoting economic growth

((What are the social benefits of insurance?))

Social Benefits of Insurance

- Loss Prevention
 - Insurers support loss-prevention activities that reduce direct and indirect losses
- Enhancement of Credit
 - Insured individuals are better credit risks than individuals without insurance

((What are the social benefits of insurance?))