

INTRODUCTION TO RISK AND INSURANCE (311-1)

Obj 1-1. **RISK** is the *possibility* of loss. Risk creates the need for insurance.

Possibility means that something could occur. Possibility either exists or not; it can *not* be measured.

Probability measures the expected frequency of an event over time. Probability *can* be measured.

A **loss exposure** presents the possibility of future **loss** (decline in value).

There are **two types of losses**:

1. **direct loss**--financial loss directly resulting from the event *and*
2. **indirect (consequential) loss**--lost income or increased expenses arising indirectly from the direct loss.

UNCERTAINTY is a subjective evaluation based on one's perceptions concerning the occurrence of a loss. While objective risk is measurable, subjective uncertainty varies among individuals

A **PERIL** is a cause of a loss.

A **HAZARD** is a characteristic that increases loss frequency and/or severity.

Hazards are evaluated in underwriting and rating insurance.

There are **three major categories of hazards**:

1. **Physical hazard**--is a tangible characteristic of the person, property, or operation insured.
Examples: ill-health, wood frame construction, and youthful drivers.
2. **Moral hazard**--is a subjective characteristic of the insured that increases loss frequency or severity. *Moral hazard results in active inducement of loss.*
Examples: a reputation for dishonesty, repeated suspicious fires, and associating with felons.
3. **Attitudinal [morale] hazard**--is an insured's care-free attitude to loss.
Attitudinal hazard results in passive indifference to loss.
Examples: poor housekeeping, a 'Who cares?' attitude, unearned wealth.

Obj 1-2 + 1-3. **MEASUREMENT OF RISKS:**

1. **Deductive (a priori) reasoning**--is theoretical and constant.
It can be calculated deductively without actual trials (coin flips, dice throws, card draws).
2. **Inductive reasoning**--is based on statistical analysis.
It is computed from historical data from study samples (mortality tables, battery lives).
Accuracy of forecast results depends upon three group characteristics: **mass** (a large number sample), **homogeneity** (exposure units with similar characteristics), *and* **independence** (the occurrence or nonoccurrence of one event does *not* change the probability of other events).
The law of large numbers states that when the number of similar, independent, exposure units (cars, homes, lives) increases, the relative accuracy of loss predictions also increases.
An insurer estimates that the overall loss experience for its insureds will approximate the expected loss experience. However, an individual cannot use the probability of loss to measure his own risk. *Example:* Assume the probability of fire loss to a single-family home is 1 in 1,000. An individual homeowner will have either a loss or no loss--he will not have 1/1,000 of a loss.

THE MAJOR CLASSIFICATIONS OF RISK:

1. **Financial versus nonfinancial risk**--**Financial risk** involves financial loss.
Examples: medical bills, lost earnings, and property damage.
Nonfinancial risk does *not* involve financial loss.
Examples: pain and suffering, paralysis, or loss of memory.
Insurance is designed to address financial risks, but can also compensate for nonmonetary losses.
2. **Fundamental versus particular risk**--**Fundamental risk** exposes many people to the same loss exposure. *Examples:* war and flood.

Particular risk exposes just one or a few people to the same loss exposure.

Examples: dwelling fire, car theft, and death by auto accident.

Insurance addresses particular risk, but *not* fundamental risk. Fundamental risks are considered the responsibility of society and are often addressed by government action.

3. **Static versus dynamic risk--Static risk** involves losses not related to changes in society or the economy. *Examples:* death of a family breadwinner and liability arising from auto accidents.

Dynamic risk is related to changes in society or the economy. *Examples:* changes in consumers' tastes and technological obsolescence.

Static risks can be treated by insurance.

4. **Pure versus speculative risk--Pure risk** involves loss or no loss--the chance of financial loss *without* the chance of financial gain. *Examples:* fire, death, and tornado.

Speculative risk involves loss, no loss, *or gain*--the chance of financial loss *with* the chance of financial gain. Speculative risk is usually created intentionally.

Examples: stock market investing and gambling.

Insurance addresses pure risk, *not* speculative risk.

5. **Insurable versus uninsurable risk--An insurable risk (the requirements of insurability)**

- a. **has a large number of similar exposure units, with losses that are**

- b. **accidental**--from the insured's standpoint,

- c. **definite**--as to time, place, cause, and amount,

- d. **not catastrophic to the insurer**--but catastrophic to the insured,

- e. **calculable**--as to loss frequency and severity, *and*

- f. **economically feasible to insure**--low enough for insureds to pay premiums and insurers to pay losses.

The three major types of pure risk:

1. **Personal risks**--are risks that an individual will suffer a loss directly.

They include risk of death, injury, illness, old age, and unemployment.

2. **Property risks**--include the risks that property may be damaged, may be destroyed, or may disappear as a result of some peril.

They include the risk of lost income due to damaged property.

3. **Liability risks**--involve the risks that an individual's financial resources may be diminished as a result of claims for money damages due to injury to another.

[The differences between insurance and gambling:

1. *Gambling creates speculative risk. Insurance treats existing pure risk.*

2. *Gambling produces a win-lose situation. In insurance, both parties win if no loss occurs. If the insured suffers a loss, he is indemnified.]*

Obj 1-4. **AN INDIVIDUAL'S RESPONSE TO RISK** depends on his **risk-tolerance level** (an individual's unique reaction to differing amounts of risk).

Although risk tolerance is difficult to measure and varies from individual to individual and from situation to situation, **researchers have determined seven general concepts about risk tolerance of individuals:**

1. Most people are more risk averse than they are risk tolerant.
2. A person who is a risk taker in one type of situation needn't be a risk taker in financial situations.
3. A person's attitude about a particular risk can be influenced by the framing of the question about that risk--eg, a 50% chance of loss vs. a 50% chance of gain.
4. Emotions affect perceptions about risk.
5. People tend to underestimate high-probability risks and overestimate low-probability risks.
6. People make riskier decisions if strangers will bear the consequences than if loved ones will.
7. People tend to fear familiar risks less than unfamiliar risks.

Obj 1-5. **THE COSTS OF PURE RISK** include the actual loss that occurs, fear and worry, inefficient allocation of resources, and the costs of treating risks.

Obj 1-6. **INSURANCE AS A TECHNIQUE FOR TREATING PURE RISKS:**

1. **Economic viewpoint**--Insurance reduces risk by transferring risk from the insured to the insurer and by pooling the losses of a few members and redistributing them over the entire group.
2. **Legal viewpoint**--The policy is a contract of indemnity in which the insured pays a premium to the insurer in exchange for the insurer's promise to indemnify the insured for any losses.
3. **Business viewpoint**--A large number of individuals and businesses transfer their risks to a financial institution that specializes in risks.
4. **Social viewpoint**--Insurance acts as a social device that allows large groups to pool their resources and meet the needs of the few group members who suffer losses.
5. **Mathematical viewpoint**--Insurance uses actuarial estimates to predict and distribute losses.
6. **Risk management viewpoint**--Insurance is the risk-financing technique that transfers the financial consequences of loss to an insurance company.

The six key elements often included in the definition of insurance:

1. risk transfer,
2. risk spreading,
3. **indemnification** (payment for losses actually incurred),
4. the ability to estimate future losses,
5. the ability to express losses in definite monetary amounts, *and*
6. the possibility of adverse, random events outside the insured's control.

Obj 1-7. **SEVEN BENEFITS OF INSURANCE TO SOCIETY:**

1. **Indemnification for losses**--Indemnification enables insureds to retain their pre-loss financial positions, employees to keep their jobs, and the economy to remain stable.
2. **Reduction of uncertainty**--When insureds can better predict their financial losses (ie, regular premiums instead of irregular loss occurrences), they worry less.
3. **Credit enhancement**--Lenders require their collateral to be insured.
4. **Forced saving**--Property insurance forces insureds to contribute money to a fund that will pay losses. Level premium life insurance requires periodic payments that build cash value.
5. **Source of investment funds**--Insurers provide funds to businesses and governments as financial intermediaries by investing unearned premiums.
6. **Increased productivity**--The insurer specializes in risk bearing, thereby freeing organizations and individuals to focus their efforts and capital in areas in which they are most productive.
7. **Loss reduction**--Insurers sponsor loss control activities that reduce loss frequency and severity.

THE FIVE COSTS OF INSURANCE TO SOCIETY:

1. **Operating costs**--Insurers' operating expenses include commissions, administrative expenses, loss adjustment expenses, and taxes.
2. **Profits**--Like other businesses, insurers must earn a profit.
3. **Opportunity costs**--Insurers consume scarce economic resources: labor, buildings, and trees.
4. **Fraudulent and inflated claims**--Insurance encourages insureds to fabricate claims, to cause intentional losses, and to exaggerate claims.
5. **Adverse selection**--The people who most want to buy insurance are the ones who are most likely to have losses. If people with a higher-than-average chance of loss are insured at average rates, the insurer suffers higher-than-expected losses.
Underwriters control adverse selection by underwriting applicants, that is by *either* rejecting those most prone to loss *or* offering them coverage at higher premiums.

Obj 1-8. **THE MAJOR CATEGORIES OF INSURANCE:**

1. **Life and health versus property and liability--The life and health category** includes insurance related to death, medical care, disability, and old age.
The property and liability category includes coverage that indemnifies insureds for direct and indirect loss to property and legal liability to third persons.
2. **Personal versus business--Personal insurance** addresses the needs of individuals and families.
Business insurance addresses the needs of businesses, nonprofits, and governments.
3. **Private versus government--Private insurance** is provided by privately owned insurers.
Private insurance includes *both* life and health *and* property and casualty insurance.
Government insurance consists of government programs provided to large segments of society. Government insurance includes social insurance and other government insurance programs such as flood insurance and crop insurance.
Social insurance programs are financed primarily by compulsory contributions from employers and/or employees and are characterized by benefits prescribed by law and offered as a matter of right with an emphasis on social adequacy rather than individual equity.
4. **Individual versus group--Individual insurance** is usually owned by the person or entity who is insured or who owns the insured property.
Under group insurance, the policyowner is an employer who holds the master contract. Each group member receives a certificate of insurance as evidence of coverage.
Group insurance does *not* require individual **evidence of insurability** (documentation shown to an insurer substantiating the insured's favorable characteristics relevant to the insurer's decision whether to accept the risk).
Underwriters evaluate the group, *not* the individual.

Obj 1-9. **KEY TERMS** are defined and explained in context.

And, as a bonus, they are given separately in another section of the study material.