

1

Objective Risk - relative variation
of actual from expected loss

Subjective Risk - uncertainty based on a
person's mental condition or state of mind.

Objective probability - long run relative
frequency of an event based on the
assumption of an infinite # of observations,
no change in underlying conditions

Subjective probability - personal estimate of the
chance of loss.

Fundamentals & Terminology in Risk and Insurance

Definition of Insurance

A financial mechanism whereby an individual or entity pay a small certain amount (i.e. premium) in exchange for being indemnified (i.e. reimbursed for covered losses) for large uncertain loss (i.e. the contingency insured against).

- Key Elements:
- Financial Arrangement
 - Loss Redistribution
 - Dealing with Unexpected Loss

Ch 1/2
Def of Insurance

Insurance Illustration

500 Homes Each Insured for \$600 premium this year, with a Coverage of \$100,000.

Total Premium Income:

$$500 \times \$600 = \$300,000$$

Out of the 500 insured homes



Homes 1, 100 : 500 are destroyed

$$\text{Total loss} = 3 \times \$100,000 = \$300,000$$

$$\text{Premium Income} - \text{Insured loss} = \$0$$

Each homeowner shared in paying for the losses with the 500 homes that were insured.

Legal Definition of Insurance

A contractual arrangement whereby one party agrees to compensate another party for losses.

Ch 1/2
Def of Insurance

Loss - An undesired, unplanned reduction in economic value arising from chance.



Direct losses

Immediate result of an insured loss

occurring

⇒ e.g. physical damage
Auto body work

Indirect losses

Consequential, loss of use

e.g. need to rent car when the one you own is being repaired

5

Chance of loss:

$$= \frac{\text{Actual } \# \text{ expected losses}}{\# \text{ exposed to loss}}$$

Difference Between Hazard vs. Peril

Peril is the cause of loss. (e.g. fires, tornadoes, heart disease)

Insurance will sometimes list specific perils covered under the contract.

Hazards - Conditions that increase either the frequency or severity of loss.

3 Types - (1) Physical (2) Moral (3) Morale

Proximate Cause:

The first peril in a chain of events resulting in loss.

e.g. Deer → Car → Ditch → telephone pole
→ Smashed in front end
+
Deer meat

Risk: Variation in possible outcomes of an event based on chance.

⇒ Adverse Deviation away from expected results.

7

Degree of Risk :

A measure of the accuracy with which the outcome of an event based on chance.

Higher the accuracy of prediction
⇒ lower the degree of risk

Risk Classifications :

Pure vs. Speculative

Fundamental vs. Particular

Static vs. Dynamic

7

Which

8

Risk Management: is the logical process used by businesses and/or individuals to deal with exposure to loss.

Risk Mgt encompasses more techniques than just insurance:

- ① Risk Avoidance
- ② Risk Assumption
- ③ Loss Control / Prevention
- ④ Loss Transfer / Sharing

Ch 1/2
Def: Risk
Insurance