

Introduction to Insurance

MODULE 4

Insurance

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

Basic characteristics of Insurance

- ▶ Pooling of losses
- ▶ Payment of fortuitous (happening by chance) loss
- ▶ Risk transfer
- ▶ Indemnification

1. Pooling of losses:

Pooling or sharing of losses is the heart of insurance. Pooling is the spreading of losses incurred by a group over the entire group, so that in the process, average loss is substituted for actual loss.

Pooling involves grouping of large number of exposure units to provide a substantially accurate prediction of losses by the law of large Numbers.

Basic characteristics

- ▶ Pooling offers sharing of losses by entire group and prediction of future losses with greater accuracy by of large numbers
- ▶ Assume 1000 farmers in moodabidre taluk and if on average 1 house burns every year the loss is 200000 absence of pooling or loss sharing the loss is 200000 loss sharing it comes down to $200000/1000 = 200$. so helps in substitution of average loss of 200 for the ac of 200000
- ▶ The insurer on the other hand can more accurately the average loss which results in risk reduction base large numbers. *The law of large numbers states that greater the number of exposures the more closely v actual results approach the probable result that are expected from an infinite number of exposures. Ex: coin 10 times and a million times*

Basic characteristics

- ▶ In another example accident chances can be accurately predicted during a *mela* than on a day because of law of large numbers.
- ▶ Most insurers do not know the true probability and severity of losses. They estimate average probability and average severity of losses based on historical data. Objective risk varies inversely with square root of number of cases. Greater the number better is the prediction and lower is the premium charged to each client.

2. Payment of fortuitous losses:

Fortuitous loss is one that is unforeseen and unexpected and occurs as a matter of chance. Insurance companies pay fortuitous losses and not intentional losses.

Basic characteristics

3. Risk transfer:

A pure risk (pure loss, no gain) is transferred from the insured to the insurer who is typically in a stronger financial position to pay the losses than the insured. Pure risks that are transferred are risk of premature death, poor health, disability, destruction of property and personal liability lawsuits.

4. Indemnification:

Indemnification means that the insured is restored to his or her approximate financial position prior to the occurrence of loss. Eg: fire policy, auto liability policy, disability insurance

Requirements of an insurable

- ▶ Insurers insure pure risk but not all pure risks are insurable. Certain requirements must be fulfilled before a pure risk can be insured. There are 6 requirements of an insurable risk.
- ▶ 1. Large number of exposure units:
There must be a large number of roughly similar but not identical risk exposure units so that the insurer can predict loss based on the law of large numbers. This helps to predict loss and spread premium across clients.
- ▶ 2. Accidental and unintentional loss:
- ▶ Ideally the loss must be fortuitous and outside the control of the insured. If the insured causes a deliberate loss he/she should not be indemnified.
- ▶ If intentional losses are paid moral hazards increase, causing an increase in premium resulting in reduction of clientele. This reduces predictability of losses.
- ▶ Secondly, the law of large numbers is based on random occurrence of events. An intentional loss is not random and will therefore affect predictability.

- ▶ 3. Determinable and measurable loss:
- ▶ Means of the loss should be definite as to cause, place and amount. Life insurance easily meets requirements. But there are cases like disability is difficult to determine where people can fake disability/injury. Measuring it is also not easy. It depends upon the will power of the client to rehabilitate and get back to work.
- ▶ 4. No catastrophic loss:
- ▶ Catastrophe goes against the advantages of pooling and sharing risk. Insurance technique becomes unviable under catastrophe. Insurers wish to not have catastrophe but it is not possible all the time. Flood, hurricane, tornadoes, earthquake, forest fires, or natural disasters happen. There are three ways insurer avoids catastrophe losses viz re-insurance, dispersing coverage area and financial instruments like catastrophe bonds.

- ▶ 5. calculable chances of loss:
- ▶ An insurer must be able to calculate both the average frequency and average severity of losses with some accuracy. This helps them calculate a premium that suffices paying for and maintain some profit. Certain losses like catastrophe losses are difficult to estimate and private insurers have difficulty in covering them without govt support.
- ▶ 6. economically feasible premium:
- ▶ Premium must be affordable by the insured and be substantially lower than the face value of policy. To maintain an affordable premium, the chance of occurrence must be very low. If chance of occurrence $> 10\%$ then premium $>$ sum assured.

- ▶ Based on these 6 requirements it is to insure most personal risks, proper risks and liability risks as requirements of insurable risk can be met easily. However, market risks, financial risks, production risks, and political risks are difficult to insure by private insurers. These are speculative and requirements of insurable risks are difficult to maintain. Also, each risk is capable of producing a catastrophe. Ex political risk turning into a war.

Two examples- fire and unemployment

- ▶ Read text by Rejda page nos 23 and 24

Adverse selection and insurance

- ▶ Insurers have to deal with the problem of adverse selection. Adverse selection is the tendency of persons with a higher than average chance of loss seeking insurance at standard rates which if not controlled by underwriting results in higher than expected loss levels. In such case the insurer is said to be “adversely selected against” eg high risk drivers, low health individuals seeking insurance at normal rates
- ▶ This can be controlled by careful underwriting. Underwriting refers to the process of selecting and classifying applicants for insurance. Applicants who meet the standard are insured at standard rates and others are either denied insurance or charged higher premiums.
- ▶ Policy provisions are also made use of to prevent adverse selection eg suicide clause in insurance and pre-existing condition clause in health insurance.

Insurance v/s gambling

- ▶ Insurance is often confused with gambling. There are 2 important differences between the two.
- ▶ 1. gambling creates a new speculative risk while insurance is a technique for handling already existing pure risk. Betting 500 on a horse creates new risk while buying a fire insurance for 500 takes care of fire risk.
- ▶ 2. gambling is socially unproductive as winners' gain comes at the expense of losers. Insurance is socially productive as both the insurer and the insured stand to gain.

Insurance v/s hedging

- ▶ Hedging transfers risk by purchase of future contract. Insurance although transfers risk is not the same as hedging
- ▶ 1. insurance contract transfers an insurable risk while hedging transfers an uninsurable risk such as price risk.
- ▶ 2. insurance can reduce the objective risk of an insurer by law of large numbers while hedging does only risk transfer to someone who thinks he can handle it and not risk reduction by law of large numbers

Types of insurance

Life insurance:

Without profit (term insurance) With profit (Endowment, money back), market linked

Non-life insurance

- General insurance- Health, marine, fire, personal accident, vehicle insurance,
- Miscellaneous insurance- fidelity guarant crop insurance, burglary, flood, cattle, co transit insurance

(assignment: refer and prepare a 10 mark on types of insurance. It is a MLQ)

Essentials/principles of insurance contract

- ▶ 1. Nature of contract: offer and acceptance of contract, free consent, competent person- pro major with sound mind, premium is the consideration effective policy date, Conditional receipt
- ▶ 2. Utmost good faith: *uberrimae fidei*, is the basis of insurance contract. Both parties must disclose all material facts related to the contract. Ex: age, education, health, inflammable material, fire detection, type and condition of car
- ▶ 3. Insurable interest: reason to insure without it the contract is void and unenforceable. fundamental principal. Must be pecuniary interest.
- ▶ 4. Indemnity: 'make good the loss' all insurance contracts except life, PA and health are indemnity contracts. Maximum full amount of loss will be paid example, marine insurance.

- ▶ Causa proxima: the nearest peril is deemed to be the cause of the loss. It is not necessary to go into the cause of the cause. If the closest peril is the one insured against the insured must be compensated.
- ▶ Rat made hole in sugar bags and water came in. sugar was insured against water. Loss was paid
- ▶ Oranges were insured against collision. Collision happened but oranges spoiled because of delay and mishandling. Loss not paid
- ▶ Contribution: in case of more than one insurance the insurers are to share the loss in proportion to the amount assured by each one of them. Applies to indemnity contracts in fire and marine insurance.

- ▶ Risk attached: risk must be attached to the policy from the time the premium is paid. If there is no risk the policy cannot run and the premium can be claimed back e.g. a ship is burnt, ship arrived safely.
- ▶ Mitigation of loss: in the event of mishap, the insured must make reasonable efforts to mitigate the loss, the absence of which the insurer may refuse to pay.
- ▶ Subrogation: transfer of all the rights and remedies available on the subject to the insurer after the indemnity has been effected. It means substituting the insurer in place of the insured. If a car is damaged by a truck the owner gets paid by insurance and the insurer gets the right to sue the truck owner.
- ▶ Term of policy: policy covers a specified number of years as term of the policy

Elements of insurance cont

- ▶ Application
- ▶ Binders
- ▶ Policy forms- heading, body, back, endorsements

READ FUNDAMENTALS OF
INSURANCE CONTRACT BY P K
GUPTA (Assignment)

Indian insurance industry