**CHAPTER THREE**

**INSURANCE**

**Definition of Insurance**

There is no single definition for a tem “insurance”. Mean that, Insurance can be defined by the different disciplines’ or perspectives’ viewpoints.

From individual’s point view, insurance can be defined as a ***risk transferring mechanism or an economic device by which a person (insured or assured) transfers a risk of a possible financial loss resulting from unforeseeable events that affects property, life or body to the insurer for a consideration*** *(i.e. for an exchange of premium).*

From insurers’ viewpoint, *insurance can be defined as a* ***mechanism through which a risk is distributed among the group of persons who are exposed to the same type of risk***. From this definition, we can understand that insurance is a cooperative economic device to spread the loss caused from a particular risk over a number of persons who are exposed to it and who agree to insure themselves against that risk. This means that insurance provides a pool of loss to which many persons contribute a certain amount of money called the **premium**, and out of which the insurer compensates the few, who suffer losses.

In general, by the insurance, the risks are transferred from the individual (insured) to the insurer who takes into account the **probability of loss** in a certain period, and then fixes the premium to be paid by each person insured in advance.

**Basic Characteristics of Insurance**

Based on the preceding definitions, an insurance plan or arrangement typically includes the following characteristics.

* Pooling of Losses
* Payment of Accidental Losses
* Risk Transfer
* Indemnification

**i) Pooling of Losses:** *Pooling or the sharing of losses is the heart of insurance***.** *Pooling is the* ***spreading*** *of losses incurred by the few over the entire group. So, this in the process, average loss is substituted for* the statistical calculation of risk or life expectancy for insurance purposes. In addition, pooling involves the grouping of a large number of exposure units so that the law of large numbers can operate to prove a substantially accurate prediction of future losses. Ideally, there should be large exposure units that are subject to the same perils. Thus, pooling implies (1) the sharing of losses by the entire group, and (2) prediction of future losses with some accuracy based on the law of large numbers.

With respect to the first concept **loss sharing** consider this simple example.

Assume that 1000 business-persons in Nekemte agree that if any business-person’s home is damaged or destroyed by a fire, the other members of the group will indemnify, or cover, the actual costs of the unlucky business-person who has a loss. Assume also that each home is worth $100,000 and one average, one home burns each year. In the absence of insurance, the maximum loss to each business-person is $100,000 if the home should burn. However, by pooling the loss, it can be spread over the entire group, and if one business-person has a total loss, the maximum amount that each business-person must pay is only $100 ($100,000/1000). In effect, the pooling technique results in the substitution of an average loss of $100 for the actual loss of $100,000.

In addition, by pooling or combining the loss experience of a ***large number of exposure*** units, an *insurer may be able to predict future losses* with greater accuracy. From the viewpoint of the insurer, if future losses can be predicted, objective risk is reduced. Thus, another characteristic often found in many lines of insurance is risk reduction based on the law of large numbers.

***The law of large numbers states that the greater the number of exposure units***, the more closely will the actual results approach the probable results expected from an infinite number of exposures. As the number of exposures increases, the relative variation of actual loss from expected loss will decline. Thus, the insurer can predict future losses with a greater degree of accuracy as the number of exposures increases. This is important since an actuary must charge a premium that is adequate for paying all losses and expenses during the policy period. The lower the degree of objective risk, the more confidence an insurer has that the actual premium charged will be sufficient to pay all claims and expenses and leave a margin for profit.

**ii) Payment of Accidental Losses:** A second characteristic of private insurance is the payment of accidental losses. *An accidental loss is one that the* ***unforeseen*** *and* ***unexpected*** *that occurs as a result of chance.* In other words, the loss must be accidental. The law of large numbers is based on the assumption that losses are accidental and occur randomly. For example, a person may slip on an icy sidewalk and break a leg**.** *The loss must be accidental; thus, insurance policies do not cover an* ***intentional*** *loss.*

**iii) Risk Transfer:** Risk transfer is another essential element of insurance. With the exception of self-insurance, a true insurance plan always involves risk transfer. *Risk transfer means that a pure risk is transferred from the* ***insured to the insurer****, who typically is in a stronger financial position to pay the loss than the insured.* From the viewpoint of the individual, pure risks that are typically transferred to insurers include the risk of premature death, poor health, disability, destruction and theft of property, and liability lawsuits.

**iv) Indemnification:** A final characteristic of insurance is indemnification for losses. *Indemnification means that the insured is* ***restored to his or her approximate financial position*** *prior to the occurrence of the loss*. Thus, if insured’s home burns by a fire, a homeowner’s policy will indemnify the insured or restore you to your previous position. If you are sued because of the negligent operation of an automobile, your auto liability insurance policy will pay the sums that you are legally obligated to pay. Similarly, if you become seriously disabled, a disability income insurance policy will restore at least part of the lost wages.

**REQUIREMENTS OF INSURABLE RISK**

Insurers normally insure only pure risks. However, not all pure risks are insurable. Pure risk also, to be insured under private insurer certain requirements usually must be fulfilled before a. From the viewpoint of the insurer, there are six **ideal requirements** of an insurable risk.

These are:

1. There must be a large number of exposure units
2. The loss must be accidental and unintentional
3. The loss must be determinable and measurable
4. The loss should not be catastrophic
5. The chance of loss must be calculable
6. The premium must be economically feasible

**i) Large Number of Exposure Units**

The first requirement of an insurable risk is a **large number of exposure units**. Ideally, there should be a large group of nearly similar, but not necessarily perfectly identical, exposure units that are subject to the same peril or group of perils. For example, a large number of frame dwellings in a city can be grouped together for purposes of providing property insurance on the dwellings.

The purpose of this requirement is to enable the insurer to predict loss based on the law large numbers. Loss data can be compiled over time, and losses for the group as a whole can be predicted with some accuracy. The loss costs can then the spread over all insured in the underwriting class.

**ii) Accidental and Unintentional Loss:**

A second requirement is that the loss should be **accidental and unintentional**. The loss should be accidental and outside the insured’s control. Thus, if an individual deliberately causes a loss, he/she shouldn’t be indemnified for that loss.

**iii) The loss should be Determinable and Measurable**

A third requirement is that the loss should be both determinable and measurable. This means the loss should be definite as to cause, time, place and amount. Life insurance in most cases meets this requirement easily. The cause and time of death can be readily determined in most cases, and if the person is insured, the face amount of the life insurance policy is the amount paid.

For some losses, however, it is difficult to determine and measure. For example, under a disability-income policy, the insurer promises to pay monthly benefit to the disable person if the definition of disability stated in the policy is satisfied. Some dishonest claimants may deliberately fake sickness or injury to collect money from the insurer. Even if the claim is legitimate, the insurer must still determine whether the insured satisfies the definition of disability stated in the policy.

The basic purpose of this requirement is to enable an insurer to determine if the loss is covered under the policy, and if it is covered, how much should be paid.

**iv) Loss should not be Catastrophic:**

The fourth requirement is that ideally the loss should not be catastrophic. This means that large proportion of exposure units **should not incur losses at the same time**. As we stated earlier, pooling is the essence of insurance. If most or all of the exposure units in a certain class simultaneously incur a loss, the pooling technique breaks down and becomes unworkable. Premiums must be increased to prohibitive levels, and the insurance technique is no longer a viable arrangement by which loses of the few are spread over the entire group.

Insurers ideally which to avoid all catastrophic losses. In reality, however, this is impossible, because catastrophic losses periodically result from the floods, hurricanes, tornadoes, earthquakes, forest fires, and other natural disasters. Catastrophic losses can also result from acts of terrorism.

Several approaches are available for meeting the problems of catastrophic loss. First, ***reinsurance*** can be used by which insurance companies are indemnified by reinsures for catastrophic losses. Reinsurance is the shifting of part or all of the insurance originally written by one insurer to another. Second, insurers can ***avoid the concentration of risk*** by dispersing their coverage over a large geographical area. The concentration of loss exposures in a geographic area exposed to frequent floods, earthquakes, hurricanes, or the natural disasters can result in periodic catastrophic losses. If the loss exposures are geographically disperses, the possibility of a catastrophic loss is reduced. Finally, new *financial instruments* are now available for dealing with catastrophic losses. These instruments include *catastrophe bonds*, which are designed to pay for a catastrophic loss.

**v) Calculable Chance of Loss:**

A fifth requirement is that the chance of loss should be calculable. The insurer must be able to calculate both the average frequency and the average severity of future losses with some accuracy. This requirement is necessary so that a proper premium can be charged; which is sufficient to pay all claims and expenses and yield a profit during the policy period. Certain losses, however, are difficult to insure because the chance of loss cannot be accurately estimated, and the potential for a catastrophic loss is present. For example, floods, wars and cyclical unemployment occur on an irregular basis, and prediction of the average frequency and the severity of losses are difficult. Thus, without government assistance, these losses are difficult for private carriers to insure them.

1. **Economically Feasible Premium**

A final requirement is that the premium should be economically feasible. The insured must be able to pay the premium. In addition, for the insurance to be an attractive purchase, the premiums paid must be substantially less than the face value of the policy. To have an economically feasible premium, the chance of loss must be relatively low. One view is what if the chance of loss exceeds 40%, the cost of the policy will exceed the amount that the insurer must pay under the contract. For example, an insurer could issue a $1,000 life insurance policy on a man age 99, but the pure premium would be about $980, and an additional amount for expenses would have to be added. The total premium would exceed the face amount of the insurance.

Based on these requirements, personal risks, property risks and liability risks can be privately insured, because the requirements of an insurable risk generally can be met. By contrast, most market risks, financial risks, production risks and political risks are usually uninsurable by private insurers. These risks are uninsurable for several reasons.

**Insurance vs. Gambling Compared**

Insurance differs from gambling in two ways. First, gambling creates a new speculative risk that did not exist before, while insurance is a technique for handling an already existing pure risk. Second, gambling is socially unproductive, in which the winner’s gain comes at the expense of the loser. Insurance is always socially productive, because both the insured and insurer win if the loss does not occur.

A contract of insurance differs from a contract of gambling for the following reasons:

1. The purpose of an insurance contract is to protect the insured against economic losses resulting from a certain unforeseen future event, while the purpose of a gambling agreement is to gamble for money and money alone.
2. In an insurance contract, the insured has an insurable interest in the life or property wanted to insured. In a gambling agreement, neither party has any pecuniary or insurable interest in the subject matter of the agreement except the resulting gain or loss. This is the main distinguishing feature of a valid contingent contract as compared to a gambling agreement.
3. A contract of insurance (except life, accident and sickness insurances) is based on the principle of indemnity. However, in a gambling agreement there is no question of indemnity, as it does not cover any risk.

4. A contract of insurance is based on scientific calculation of risks and the amount of premium is determined after taking into account the various factors affecting the risk. In a gambling, there is no question of any calculation what so ever, it being a mere gamble.

**Insurance and Hedging Compared**

Insurance differs from hedging. An insurance transaction usually involves the transfer of risks that are insurable, because the requirements of an insurable risk have to be fulfilled. Hedging is a technique for handling risks that are typically uninsurable, such as protection against a substantial decline in the price of commodities. The second difference is that insurance may reduce objective risk because of application of the law of large numbers. In contrast, hedging typically involves only risk transfer, not risk reduction.

**Adverse Selection**

Adverse selection is an act of a person with a higher-than-average chance of loss to seek insurance at standard (average) rates, which results in a higher­ actual loss than the expected level, if not controlled in underwriting process. Adverse selection can be controlled by; careful underwriting, charging higher premiums to substandard applicants for insurance, and by certain policy provisions.

**Social Benefits and Costs of Insurance**

1. ***Benefits of Insurance for the Society***

As a mechanism of transfer risk; insurance has great economic and social benefits to the individual insured, his family, community, and the country in general.

The following are some of the major benefits insurance:

1. Indemnification for loss
2. Less worry and fear
3. Source of investment funds
4. Loss control
5. Enhancement of credit
6. **Indemnification for Losses**

The payment of compensation by the insurer for losses, permits individuals and their families to be restored to their prior financial position after the loss has occurred. As a result, they can maintain their financial security. Since they are restored either in-part or as whole after a loss occurs, they are less likely to seek financial assistance from relatives and friends. It also allows businesses to remain in business and employees to keep their jobs, suppliers will continue to receive orders, and customers can still purchase the goods and services they desire. The community also benefits because its tax base is not eroded. Businesses and families who suffer unexpected losses are restored or at least moved closer back to their previous economic position. The advantage to these individuals is obvious. The society also gains because these persons are restored to production and tax revenues are increased. In short, the indemnification function contributes greatly to family and business stability and therefore is one of the most important social and economic benefits of insurance.

1. **Reduction of Worry and Fear**

Another benefit of insurance is that it reduces worry and fear, in both before and after loss occurs. For instance, if family heads have life insurance for adequate amount to cover the future needs of their families, they are less likely to worry about the financial security of their dependents in the event of their premature death. A person who insured for long-term disability does not have to worry about the loss of earnings if a serious illness or accident occurs. Property owners who are insured enjoy greater peace of mind since they know that they are covered (they would be compensated) if loss occurs to their property.

1. **Source of Investment Funds**

The insurance industry is an important source of funds for capital investment and accumulation. **Premiums**, which are collected by the insurer each year in advance and other funds which are not needed for immediate to pay losses & other expenses, can be loaned to businesses or invested in manufacturing, real estate... sectors. These investments increase the society's stock of capital goods and promote economic growth.

Through compensation for losses, insurance also encourages new investment. For instance, if an individual knows that his/her family’s; protected by life insurance in the event of premature death, and the family's properties are protected by various types of property insurances, he/she may be more willing to invest savings in a long-desired project such as a business venture, without feeling that the family is being in doubt of their basic income security. In a way a better allocation of resources is achieved, i.e., idle funds/deposits are used for a more productive purpose. As insurance is an efficient device to reduce risk, investors may also be willing to enter fields they would otherwise reject as too risky, and the society benefits from increased services and production.

1. **Means of Loss Control**

Although the main function of insurance is not to reduce loss but merely to spread/distribute losses among members of the insured group, insurers are nevertheless vitally interested in keeping losses at a minimum. Insurers know that if no effort is made to prevent or minimize occurrence of insured risks, losses and hence premium would have a tendency to rise. It is human nature to relax vigilance when they know that the loss will be fully paid by the insurer.

The followings are some of the areas in which insurance companies play a very important role in loss prevention and control:

* + Development of fire safety standards and public education programs
  + Investigation of fraudulent insurance claims to discourage intentional destruction of property.
  + The insurance industry also finances programs aimed at reducing premature deaths, accidents and illness.

**e) Enhancing Credit**

Insurance enhances a person's credit, i.e., *it makes the borrower a* ***better credit risk*** *because it guarantees the value of the borrower‘s collateral/mortgage, and it gives the lender a greater assurance that the loan will be repaid.* For instance, when a house is purchased on credit provided by a lending institution, the lender normally requires a property insurance on the house before the mortgage loan is granted. The property insurance protects the lender's financial interest if the property is damaged or destroyed. Similarly, if a purchase of an automobile is financed by bank or other lending institution motor vehicle insurance may be required before the loan is given. It also enhances small businesses’ competitiveness. Small businesses would not be able to compete with big businesses without an insurance to which they transfer risks to their assets. This is true because in cases where risks occur they would be compensated and the business remains in the market. However, in the absence of insurance, the occurrence of a certain loss may destroy the business and put it out of the market. Big businesses on the other hand, may safely retain some of such losses even in the absence of insurance. Hence, insurance through payment of compensation for losses will keep small and medium businesses in the market and enable them to maintain their competitiveness.

**B. Costs of Insurance to Society**

Although the insurance industry provides enormous social and economic benefits to society, the social costs of insurance must also be recognized. The major social costs of insurance include the following:

1. Cost of doing business
2. Fraudulent claims
3. Inflated claims

**a) Cost of Doing Business**: One important cost is the cost of doing business. *Insurers consume scarce economic resources; land, labor, and capital to providing an insurance services for the society.* In financial terms, an expense loading must be added to the pure premium to cover the expense incurred by insurance companies in their daily operations. An expense loading is the amount needed to pay all expense, including commissions, general administrative expenses, state premium taxes, acquisition expense, and an allowance for contingencies and profit.

**b) Fraudulent Claims**: A second cost of insurance comes from the submission of fraudulent claims. Examples for fraudulent claims includes: Faked (intentionally caused) auto damaging to collect benefits from insurer, providing false medical bill submitted to health insurance to collect benefits, Dishonest policy owners take out life insurance policies on insured who are later reported as having dies.

The payments of such fraudulent claims results in higher premiums to all insured. The existence of insurance also pushes some insured to deliberately cause a loss so as to profit from insurance. These costs are directly fall on the society.

**c) Inflated Claims**: Another cost of insurance relates to the payment of inflated claims. *Although the loss is not intentionally caused by the insured, the birr amount of the claim may exceed the actual financial loss*. Examples of inflated claims include the followings: *high liability judgments by claimant’s attorney which exceeds the true economic loss of the victim,* overstated the birr amount of damage in automobile collision to cover the collision deductible, benefits for a longer duration from disability income insurance as a result of magnified injury, and etc. Inflated claims must be recognized as an important social cost of insurance. Payment of inflated claims increased insurance premiums. As a result, disposable income and the consumption of other goods and services are reduced.