**CHAPTER THREE**

**OVERVIEW OF INSURANCE**

**Introductions**

Insurance is an important method of transferring pure loss exposures to an entity better positioned to handle these risks. But what is insurance and how does insurance work? This chapter analyse the insurance mechanism. You will learn the important characteristics of insurance and what conditions must be present for arisk to be privately insurable. Although insurance provides many benefits to society, there are some costs associated with the use of insurance. These costs and benefits are discussed in this chapter.

* 1. **Definition of Insurance**

There is no single definition of insurance. Insurance can be defined from the viewpoint of several disciplines, including law, economics, history, actuarial science, risk theory, and sociology. For example, from an economic viewpoint, insurance is a system for reducing financial risk by transferring it from a policy owner to an insurer. The social aspect of insurance involves the collective bearing of losses through contributions by all members of a group to pay for losses suffered by some group members. From business point of view, insurance is a financial arrangement that redistributes the costs of unexpected losses. Insurance involves the transfer of potential losses to an insurance pool, the pool combines all the potential losses and then transfers the cost of the predicted losses back to those exposed. Thus, insurance involves the transfer of loss exposures to an insurance pool, and redistribution of losses among the members of the pool.

From a legal standpoint, an insurance contract (policy) transfers a risk, for a premium (consideration), from one party (the policy owner) to another party (the insurer). It is a contractual arrangement in which the insurer agrees to pay a predetermined sum to a beneficiary in the event of the insured’s death. By virtue of a legally binding contract, the possibility of an unknown large financial loss is exchanged for a comparatively small certain payment. This contract is not a guarantee against a loss occurring, but a method of ensuring that payment is made for a loss that does occur.

According to the commission on insurance terminology of the American risk and insurance association insurance is the pooling of fortuitous losses by transfer of such risks to insurers, who agree to indemnify insured for such losses, to provide other pecuniary benefits on their occurrence, or to render services connected with the risk. A promise of compensation for specific potential future losses in exchange for a periodic payment. Insurance is designed to protect the financial well-being of an individual, company or other entity in the case of unexpected loss. Agreeing to the terms of an insurance policy creates a contract between the insured and the insurer. In exchange for payments from the insured (called premiums), the insurer agrees to pay the policy holder a sum of money upon the occurrence of a specific event.

**Illustration**

Suppose Ethiopian Insurance Corporation has sold 500,000 fire insurance policies, through its various branches i.e., policies that cover losses related to residential buildings so that the insurer will have to pay compensation to the insured or the beneficiary of the policy in case where such property is devastated by fire or lightening. The money collected from the sale of these policies form the pool out of which compensation shall be paid to those persons who have suffered financial loss because of damage to the insured house. Let us say that in the given financial year 10,000 policyholders have sustained financial losses /or lost their properties because of various perils which are covered by the policy. So, the insurer according to the obligation it has undertaken pays compensation to these policy holders out of the pool mentioned above, i.e., the price collected by the insurer from the sale of the policies (premium). In other words this means that all 500,000 policy holders who have paid the premium have contributed to the compensation paid to those who have sustained losses. This also means that, the insurer has distributed the losses sustained by the 10,000 policyholders among the remaining 490,000 policyholders whose properties were not damaged or destroyed in the given year.

* 1. **Basic Characteristics of Insurance**

Insurance has a number of distinct characteristics. These characteristics include: pooling of losses, payment of fortuitous losses, risk transfer, and indemnification of losses.

**Pooling of loss**

Insurance is based on a mechanism called risk pooling, or a group sharing of losses. Pooling is the spreading of losses incurred by the few over the entire group, so that in the process, average loss is substituted for actual loss. In addition, pooling involves the grouping of large number of exposure units so that the law of large number can operate to provide a substantially accurate prediction of future losses. Ideally, there should be a large number of similar, but not necessarily identical, exposure units that are subject to the same perils. People exposed to a risk agree to share losses on an equitable basis. They transfer the economic risk of loss to an insurance company. Insurance collects and pools the premiums of thousands of people, spreading the risk of losses across the entire pool. By carefully calculating the probability of losses that will be sustained by the members of the pool, insurance companies can equitably (fairly) spread the cost of the losses to all the members. The risk of loss is transferred from one to many and shared by all insured’s in the pool. Each person pays a premium that is measured to be fair to them and to all based on the risk they impose on the company and the pool (each class of policies should pay its own costs). If all insured’s contribute a fair amount to the loss of fund held by the insurance company, there will be sufficient dollars in the fund to pay the loss benefits of those insured’s that exposed for loss in the coming year.

Individually, we do not know when we will exposed for accident or loss, but statistically, the insurer can predict with great accuracy the number of individuals that will incurred a loss in a large group of individuals. The insurance company has taken uncertainty on any individual’s part, and turned it into a certainty on their part. Thus pooling implies: Sharing of loss by the entire group and prediction of future losses with some accuracy based on the law of large number.

**Examples:** The simplest illustration of risk pooling involves providing life insurance for one year, with all members of the group the same age and possessing similar prospects for longevity. The members of this group agree that a specified sum, such as $100,000, will be paid to the beneficiaries of those members who die during the year, the cost of the payments being shared equally by the members of the group. In its simplest form, this arrangement might involve an assessment upon each member in the appropriate amount as each death occurs. In a group of 1,000 persons, each death would produce an assessment of $100 per member. Among a group of 10,000 males aged 35, 21 of them could be expected to die within a year, according to the 1980 Commissioners Standard Ordinary Mortality Table (more on this later). If expenses of operation are ignored, cumulative assessments of Birr210 per person would provide the funds for payment of $ 100,000 to the beneficiary of each of the 21 deceased persons. Larger death payments would produce proportionately larger assessments based on the rate of $2.10 per $ 1000 of benefit.

**Payment of fortuitous losses**

The second characteristic of insurance is the payment of fortuitous losses. A fortuitous loss is

one that is unforeseen and unexpected and occurs as a result of chance. In other words, the loss must be accidental. For example, a person may slip on an icy side walk and break his or her leg. The loss would be fortuitous.

**Risk Transfer**

Risk transfer is another essential future of insurance. 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 view point of individual, pure risk that are typically transferred to insurer include, the risk of premature death, poor health, disability, destruction and theft of property and personal liability lawsuits

**Indemnification**

The last characteristic of insurance is indemnification. It means that the insured is restored to his or her approximate financial position prior to the occurrence of the loss. Thus, if the home of insured burns in fire, homeowner policy will indemnify or restore the insured to previous positions. If you are sued because of the negligent of an automobile, your auto liability insurance policy will pay those sums that you are legally obliged to pay. Similarly, if you become seriously disabled, a disability income insurance policy will restore at least part of the lost wages.

* 1. **Fundamentals of Insurable Risk**

Insurer normally insures only pure risk. However not all pure risks are insurable. Certain requirements usually must be fulfilled before pure risk can be privately insured. From the view point of insurer, there is ideally six requirements of an insurable risks. 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.

**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 roughly similar, but not necessarily identical, exposure units that are subject to the same peril or group of perils. For example, a large number of surrounding dwellings in a city can be grouped together for purposes of providing property insurance on the dwellings. The purpose of this first requirement isto enable the insurer to predict loss based on the law of 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 be spread over all insured’s in the underwriting class. For a plan of insurance to function, the pricing method needs to measure the risk of loss and determine the amount to be contributed to the pool by each participant. The theory of probability provides such a scientific measurement.

Insurance relies on the law of large numbers to minimize the speculative element and reduce volatile fluctuations in year-to-year losses. The greater the number of exposures (lives insured) to a peril (cause of loss/death), the less the observed loss experience (actual results) will deviate from expected loss experience (probabilities). Uncertainty diminishes and predictability increases as the number of exposure units increases. It would be a gamble to insure one life, but insuring 500,000 similar persons will result in death rates that will very little from the expected.

**Accidental and Unintentional loss:** A second requirement is that the loss should be accidental and unintentional; ideally, the loss should be fortuitous and outside the insured's control. Thus, if an individual deliberately causes a loss, he or she should not be indemnified for the loss. The requirement of an accidental and unintentional loss is necessary for two reasons. First, if intentional losses were paid, moral hazard would be substantially increased, and premiums would rise as a result. The substantial increase in premiums could result in relatively fewer persons purchasing the insurance, and the insurer might not have a sufficient number of exposure units to predict future losses. The second reason is the loss should be accidental since the law of large number is based on the random occurrence of events. A deliberately caused loss is not random event because the insured known when the loss occur. Thus, prediction of future experience may be highly in accurate if a large number of intentional or random loss occur.

**Determinable and Measurable Loss:** The third requirement is that the loss should be both determinable and measureable. This means 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 life insurance policy is the amount paid. Some losses, however, are difficult to determine and measure. For example, under a disability income policy, the insurer promises to pay a monthly benefit to the disabled promises to pay a monthly benefit to the disabled person if the definition of disability stated in the policy is satisfied. Some dishonest claimants may deliberately fake sickness or injury to collect 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. Sickness and disability are highly subjective and the same event can affect two persons quite differently.

For example, two accountants who are insured under separate disability-income contracts may be injured in an auto accident, and both may be classified as totally disabled. One accountant, however, may be stronger willed and more determined to return to work. If that accountant undergoes rehabilitation and returns to work, the disability-income benefits will terminate. Meanwhile, the other accountant would still continue to receive disability-income benefits according to the terms of the policy. In short, it is difficult to determine when a person is actuallydisabled. However, all losses ideally should be both determinable and measurable. The basic purpose of this requirement is to enable insurer to determine if the loss is covered under the policy, and if it is covered, how much should be paid.

**Catastrophic Loss:** The fourth requirement is that ideally the loss should not be catastrophic. This means that a 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, then the pooling technique breaks down and become unworkable. Premiums must be increased to prohibitive levels, and the insurance technique is no longer a viable arrangement by which losses of the few are spread over the entire group. Insurers ideally wish to avoid all catastrophic losses. In reality, however, this is impossible, because catastrophic losses periodically result from 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 problem of a catastrophic loss. First, reinsurance can be used by which insurance companies are indemnified by reinsurers for catastrophic losses. Reinsurance is an arrangement by which the primary insurer that initially writes the insurance transfers to another insurer (called the reinsurer) part or all of the potential losses associated with such insurance. The reinsurer is then responsible for the payment of its share of the loss. Second, insurers can avoid the concentration of risk by dispersing their coverage over a large geographical area. The concentration of loss exposure in geographical area exposed to frequent floods, earthquakes, hurricanes or other natural disasters can result in periodic catastrophic loses. If the loss exposures are geographically dispersed,the possibility of catastrophic loss is reduced.

**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 that 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 severity of losses is difficult. Thus, without government assistance, these losses are difficult for private carriers to insure.

**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, or amount, of the policy. To have an economically feasible premium, the chance of loss must be relatively low. One view is that if the chance of loss exceeds 40 percent, the cost of the policy will exceed the amount that the insurer must pay under the contract. For example, an insurer could issue a Birr 1000 life insurance policy on a man age 99, but the pure premium would be about Birr 980, and an additional amount for expenses would have to be added. The total premium would exceed the face amount of the insurance."

Calculation of a proper premium may be difficult because the chance of loss cannot be accurately estimated. For example, insurance that protects a retailer against loss because of a change in consumer tastes, such as a style change, generally is not available. Accurate loss data are not available, and there is no accurate way to calculate a premium. The premium charged mayor may not be adequate to pay all losses and expenses. Since private insurers are in business to make a profit, certain risks are difficult to insure because of the possibility of substantial losses.

* 1. **Insurance and Gambling Compared**

Insurance is many times compared to gambling because in both, the payment of money is linked to the happening of an uncertain event. Some people claim that insurance is a gamble. Insurance is actually the opposite of gambling. Although insurance is often confused with gambling, there are differences between insurance and gambling. These are:

* Gambling creates a new speculative risk, while insurance is used for managing an already existing pure risk. No new risk is created by the insurance transaction.
* Gambling is a win-lose proposition because one person wins while the other loses. Insurance is a win-win situation because both the insurer and the insured have a common interest in the prevention of loss. Both parties win if the loss does not occur.
* In the case of gambling, the loss is created intentionally while in the case of insurance the loss is accidental.
* Gambling transactions never restore the losers to their former financial position. In contrast, if loss occurs, insurance contracts restore the position of the insured financially in whole or in part.
  1. **Insurance and Speculation Compared**

Both are similar in that risk is transferred by a contract and no new risk is created. The main difference between insurance and speculation lies in the type of that each is designed to handle, and in the resulting differences in contractual arrangements. The main similarity lies in the central purpose behind each transaction. However, there are some important differences exist between them. Insurance transaction normally involves the transfer of risks that are insurable since the requirements of an insurable risk generally can be met. While speculation is a technique for handling risks that are typically uninsurable. Insurance can reduce the objective risk of an insurer by application of the law of large numbers,but speculation only involves transfer of risks and not reduction of risk. The losses cannot be predicted based on the law of large numbers.

* 1. **Benefits and Cost of Insurance to the Society**

**Benefits of Insurance to Society**

As explained in the previous section, insurance serves as a very useful means of spreading the

effects of personal as well as business risks by way of loss or damage among many. Thus, the

insured have a sense of security. Individuals who pay premium periodically out of current income can look forward to an assurance of receiving a fixed amount on retirement or his family being secured in the event of his death. Businessmen also pay premium for insurance of risk of loss without constant worry about the possibility of loss or damage.

Insurance plays a significant role particularly in view of the large-scale production and

distribution of goods in national and international market. It is an aid to both trading and industrial enterprises, which involve huge investments in properties and plants as well as inventories of raw materials, components and finished goods. The members of business community feel secured by means of insurance as they get assurance that by contributing a token amount they will be compensated against a loss thatmay take place in future.

Society is not free from risks and uncertainty. Insurance is a social device providing financial compensation to those who suffer from misfortune. Such payment being made from accumulated contribution of all parties participating in the scheme. Insurance provides stability, in the society by necessary arrangement of securityagainst loss form unexpected risks. Society becomes more peaceful and safe by insurance, which provides different welfares and financial security against losses from risks. The major benefits of insurance to society are given below.

**Peace of mind:** Another benefit of insurance to society is that it decreases the worry and fear of members of society regarding the risk of accident and premature death. The insured replaces the uncertainty of loss with the certainty of a known premium. If family heads have adequate amounts of life insurance, they are less likely to worry about the financial security of their dependents in the event of premature death. Similarly, businessmen who are insured enjoy greater peace of mind because they know are covered if a loss occurs. Thus, insurance substitutes certainty for uncertainty, through the pooling of groups of people who share the risks to which they are exposed. Uncertain risks of individuals are combined, making the possible loss more certain, and providing a financial solution to the problems created by the loss. Small, certain periodic contributions (premiums) by the individuals in the group provide a fund from which those who suffer a loss are compensated.The certainty of losing the premium replaces the uncertainty of a larger loss.

**Indemnification of losses:** The primary objective of insurance is to provide financial compensation to those insured who suffered accidental losses. The essence of insurance is the principle of indemnity, means that the person who suffers a financial loss is restored to his/her approximate financial position prior to the occurrence of the loss. Thus, if your home burns in fire, a homeowners policy will indemnify you or restore your to previous position.

**Loss control:** The system of rating, which rewards risk preventionmeasures with lower premiums, encourages loss prevention. Workplaces implement health and safety measures, drivers drive more carefully; homeowners install burglar alarms and smoke detectors. Society would suffer greater losses if it were not for these measures.

**Source of Investment Funds:** From the national economic point of view, insurance enables savings of individuals to accumulate with the insurance companies by way of premium received. These funds are invested in securities issued by big companies as well as Government. Individuals who insure their lives to cover the risks of old age and death are induced to save a part of their current income, which is by itself of great importance. Insurance is also a source of employment for the people. The people get employed directly in its offices spread over the country and it also provides opportunities to the people to earn their livelihood by working as agent of the insurance companies.

**Fewer Burdens to Society:** Because insured’s are restored either in part or inwhole after a loss occurs, they are less likely toapply for public assistance welfare benefits, or to seek financial assistance from relatives and friends. So other members of the society need not help the unlucky member even after suffering from loss. If the individuals have not insured the risk, the relatives and friends should support him financially, when he becomes unlucky victim from the risks.

**Cost of Insurance to society**

No institution can operate without certain costs. These are listed below so that one can obtain an impartial view of the insurance institution as a social device. The major social costs of insurance include the following: Cost of doing business, Fraudulent claims and Inflated claims

**Cost of doing Business:** The main social cost of insurance lies in the use of scarce of economic resources land, labor, capital, and organization to operate the business. In financial terms, an expense loading must be added to the pure premium to cover the expenses incurred by insurance companies. An expense loading is the amount needed to pay all expenses, including commissions, general administrative expenses, state premium taxes, acquisition expenses, and an allowance for contingencies and profit. The cost is justified from the insured's view point as follows:

* Uncertainty concerning the payment of a covered loss is reduced because of insurance.
* The cost of doing business is not necessarily wasteful, because insurers engage in a wide variety of loss prevention activities.
* The insurance industry provides jobs to millions ofworkers.

However, because economic resources are used up in providing insurance, a real economic cost is incurred.

**Fraudulent claims:** These are the claims made against the losses that one caused intentionally by people in order to collect on their policies. There always exists moral hazard in all forms of insurance. Arson losses are on the increase. Fraud and vandalisms are the most common motives for arson. Fraudulent claims are made against thefts of valuable property, such as diamond ring or fur coat, and ask for reimbursement. These claims results in higher premiums to all insured. These social costs fall directly on society.

**Inflated claims:** It is a situation where, the tendency of the insured to exaggerate the extent of damages that result from purely unintentional loss occurrences. Examples of inflated claims include the following.

* Attorney for plaintiffs may seek high liability judgments - Liability insurance
* Physicians may charge above average fees - health insurance
* Disabled persons may malinger to collect disabilityincome benefits for a longer duration.

These inflated claims must be recognized as an important social cost of insurance. Premiums must be increased to cover the losses, and disposable income that could be used for the consumption of other goods or services is thereby reduced. The social costs of insurance can be viewed as the sacrifice that society must make to obtain the social benefits of insurance.