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POLICIES INSURANCE OF PROPERTY

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Abstract: *In developed countries, insurance is a part of education, tradition and even of life, while in Romania, now, we can talk on education at the population level in this area. The extent of all risks that affect an increasing number of persons and legal entities, requires the strict necessity to increase the business of insurance. Share phenomena or events may cause material losses to impede economic activity, to endanger the life or physical integrity of people. Hazards and risks to which man is subject are generating losses and, therefore, he needs to know to shelter their effects and to act against them.*

Keywords: *risk and uncertainty, insurable risks, risks uninsured, Insurance.*

1. THE NEED FOR INSURANCE

Since ancient times, traders sought to discover and implement ways of protection against various risks to which they were exposed to their activities of production and marketing, and persons engaged in such activities. The remarkable progress made by science and technique have led to economic and social development, increasing productivity, thus generating a wide range of risks.

In insurance, risk is defined as a future and uncertain event, the concept being combine two dimensions: the likelihood and consequences of physical and financial.¹

The probability of occurrence can be determined by mathematical statistics. I believe, for example, car accidents. If we refer to a single driver, it's hard to say when and how you have an accident and, especially, to be consequences of this accident. But if we refer to a region or country and to a certain period of time, then we might consider a series of statistics on auto accidents and to determine their like hood of producing similar conditions.

The second dimension of risk (physical and financial consequences) is as important as the first. We used to give attention only to events which have a higher frequency output and to neglect those that have a single frequency. The category of rare and very rare accident the aviation and river transport, sea and ocean, but whose consequences are very serious, awareness and assessment of these risks both individually and socially are most needed.

These two dimensions associated with the concept of risk, we need to add a third: the perception of risk. This is necessary because they realize how hazards differ from one individual to another. As an example, we consider that for a smoker, the risk of cancer disease is much greater than a nonsmoker. Paradox is that the smoker tends to undervalue or even ignore this risk. Therefore, the analysis and, especially, the interpretation of natural and technological risks to which we are exposed, the concept of risk associated psychosocial component has a key role in designing and developing means of protection against these risks.

The production of phenomena or events may cause material losses to impede economic activity, to endanger the life or physical integrity of people. In short, man is subject to multiple and varied threats caused by natural forces, the use of technology or social factors or social – economic². This causes damage to the economy generators can be grouped into two broad categories: beyond human, they are part of the earthquake, drought, lightning, landslide, tornado, storm, heavy rains, hail, floods, frost, death etc., and dependent on human will, which include accidents, break, disability, flood, fire, explosions, accidents during transport.

¹ Constantinescu, D.A., *Tratat de asigurări – vol.I*, Editura Economică, București 2004, pag.44-45.

² Văcărel,I. și Bercea,F., *Asigurări și reasigurări*, Editura Expert, București, 1993, pag. 17.

The best protection against risk is the **Prevention**, but it is not effective if the risks are generated by the forces of nature. It is clear that, if I can protect certain risks related directly or indirectly to human existence, explosion, fire (not from natural causes), accidents, etc., by following specific rules when it comes to natural hazards only (earthquake, flooding from surface waters, mudslides, tornadoes) there is no way to actually protect me against these risks.

Assistance is an action aimed at repairing the damage, but is uncertain and not always sufficient, only partially and temporarily unable to repair the damage. This means that instead of calling a special bearer of risk for insurance, recourse to the saving of money to cover any damage caused by the action risks. Of course, this method is effective only in conditions in which the exposure occurred or damage was not larger than that saving.

The provision is an action aimed at early establishment of resources for future needs. The best form of provision is to ensure, that acting in a professional manner, with the insurance companies in a specific regulatory environment, competitive insurance market.

The concept of insurance is very well outlined in the literature, but a universally accepted definition has not yet been given.

2. INSURANCE UNDER LEGAL ISSUE, ECONOMIC AND FINANCIAL

For a simple analysis, I will address security from three perspectives: legal, economic and financial.

In terms of legal provision occurs because of the insurance contract and the current law governing it. Insurance contract and the law on insurance business, as a source of rights and obligations for insurance, complement each other. With this combination there are two types of insurance:

“**Ex lege**” insurance is based on the principle of compulsory, that all persons (natural or legal), covered by such insurance are required to insure against risks provided by law. By law, the insurance market in Romania, is practicing a series of compulsory insurance, of which the most important are: the compulsory insurance of civil liability for damage to third parties by car accidents (RCA), professional liability insurance chartered accountants, of accountants, financial auditors, assessors and technical experts, professional indemnity insurance resulting from medical practice (Malpraxis) etc.

“**Ex contractu**” insurance is based on the faculty principle and end on its own initiative, the risks stipulated in the contract of insurance.

The scheme of Fig.2.1 highlights the link between the legislative and insurance:

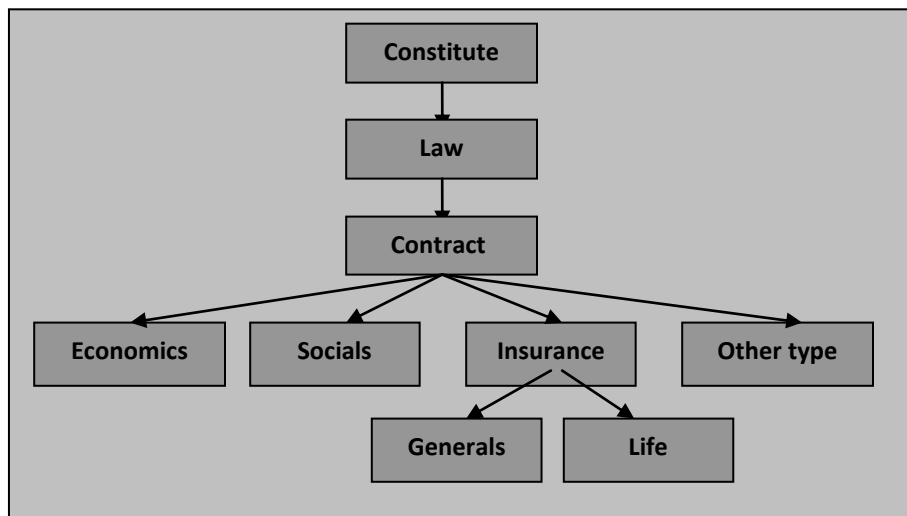


Fig. 2.1 The relationship between the legal and insurance

The insurance contract is a legal act by which the insured is required to pay a premium insurance company, forcing the latter to assume the risk of a particular event and to pay the beneficiary (which may be insured or a third person) a compensation limits³.

Starting from the definition of insurance contract can reveal some of its associated legal characteristics:

Consensual derives from the fact that the insurance will end with the mere agreement of the parties.

Reciprocity character is determined that the contracting parties assume certain obligations to each other, that means that the policyholder is required to make accurate statements regarding the risk, both to ensure completion and to produce risk, and to pay premiums insurance and the insurer is required to pay insurance compensation due, where production of the insured risk.

Random character is determined that contracting parties know whether or not the exact extent of property at the time of conclusion of insurance benefits. This is because the insured and insurer obligations depend on an uncertain future event or to conduct for each party, a chance to win or a loss. If the compensation awarded exceeds the size of the insurance premium, the benefit will be the insured, otherwise, if the risk does not occur or is below the insurance premium when the benefit is of the insurer.

Character is relevant consideration that is spread in time, forcing the insured to the insurance premium to time limits and the insurer the obligation to provide continuous protection insurance.

The character of the adhesion means that although the insurance contract is highly consensual nature, form and terms are set by the insurer of which the insured is free to join or not.

The character of good faith requires the execution of the contract is made in good faith of both parties.

In terms of legal, insurance contract runs on the basis of principles which, although not expressly mentioned in the policy, must be known and respected by both parties:

a) **The principle of compensation** is the most important principle that the insurer provides that compensation must not fall more than the amount offered by the insured losses. In other words no person can benefit from insurance, the insured serving to restore the financial situation, which they had before the catastrophe, thus reducing risk by removing subjective interest income. Looking more closely one can distinguish three principles apply to the award of damages:

The principle of proportionate liability, the ratio of compensation (D) and loss (P) can not be greater than the ratio of the sum assured (SA) and the actual value (VR) of the property insured relationship 2.1. In this case the compensation will be equal to the damage only if the total damage.
$$\frac{D}{P} = \frac{SA}{VR} \leq SA \leq VR \quad (2.1)$$

A first venture principle, which provides that compensation is equal to the damage even if the property was insured at an amount other than the true value indicating that no compensation shall not exceed the sum insured or the real value of it.

$$D = P \leq SA \leq VR \quad (2.2)$$

The principle of limited liability, under which compensation is granted only if the damage exceeds a certain predetermined value. As part of the loss will fall, in charge of the insured, that party is called franchise⁴ (F). Excess is of two kinds: achieved (single) and deductible (absolute). If simple excess, the insurer covers the full damage if the damage is above the franchise, if not all being borne by the insured, the relationship 2.3. Franchises deductible is subtracted from the hardship, regardless of its volume, the relationship 2.4.

³ Constantinescu, D.A., *Tratat de asigurări – vol.I*, Editura Economică, București 2004, pag.39.

⁴ Franchises are part of the damages rests with the insured and not compensate the insurance company. Franchises can determine whether the relative size - percentage of the sum insured or the damage, either as absolute size - an amount that is for the insured. Depending on the set of franșizelor, and insurance premiums can vary as inverse ratio to their size. Some insurers practice a series of mandatory Franchises (franșizele for total or partial theft of motor vehicles insured for theft, franșizele compulsory professional liability insurance), at least in the early years of insurance, during which examines the good faith of the insured, or if the property insured does not meet a number of requirements (functional alarm).

$$\begin{cases} D = 0, \Leftrightarrow P \leq F \\ D = P, \Leftrightarrow P > F \end{cases} \quad (2.3)$$

$$\begin{cases} D = 0, \Leftrightarrow P \leq F \\ D = P - F, \Leftrightarrow P > F \end{cases} \quad (2.4)$$

b) The principle of insurable interest exists when a person can suffer an injury or financial loss when the insured risk. This principle supports the principle of compensation, stating that insurance benefits are available only to those persons whose relationships with their insured event could cause a financial loss, and only to the extent such damages. Court can not compel an insurer to pay compensation to or in the interest of the insured if the insured has no insurable interest.

C) Subrogation principle is applied when the insurer is obliged under the policy to pay compensation to the fault of third parties. Right subrogation is based on ordinary law or regulations, and insurers are often entitled to subrogation even if this is not expressly provided in the policy.

Under existing economic aspect is closely linked to the need to ensure the establishment of a fund of cash resources to cover damage caused by certain events. This fund is formed in a decentralized manner on account of sources of money (insurance premiums or contributions), which pays legal and natural persons interested in removing the damage that would incur if it would cause certain phenomena (events)⁵. Any damage caused by the production of the insured risk is shared among all members of that community formed (make), based on the principle mutuality.

Insurance Fund is used in a centralized manner for: cover damage caused by the phenomena (events) provided funding for activities related to prevention strategy, the establishment of reserve funds to the company or mutual insurance organization.

In the process of training and use insurance fund are born some relations between participants in the insurance. Thus, initially, cash flows are insurance fund on account of premiums received, and subsequently, cash flows are based insurance fund as benefits paid (compensation or sum insured).

Ensuring expresses relations distribution and redistribution gross domestic product, relationships that appear in the creation and use of insurance fund in order to pursue continuous economic activity, preserving the integrity of insured property, to protect individuals against certain events that might affect the life or physical integrity and honor obligations liability devolving on individuals and businesses to third parties⁶.

So the economic, security meet certain functions: distribution function, control function and the function of compensation for damage.

The function of distribution is the main function of insurance and is manifested primarily in the training of insurance fund, to the organization on behalf of insurance premiums collected. Secondly, this feature is evident in the management of insurance fund to its legal destinations.

Control function is a complementary function and seeks assurances on how they are earned premiums and other revenue of the organization and how they are make payments by way of compensation.

The function of compensation for damage caused by natural disasters and accidents involving the payment of insurance benefits (goods and accident insurance) or the amounts secured (security people).

In financial security are considered a service industry, a financial intermediary and a financial asset in an economy of uncertainty.

Ensure that branch of service is observed when an insurance company in the insurance premium, undertakes to take over its negative effects of an insured risk.

The role of financial intermediaries meet him especially life insurance, although insurance companies have some financial resources temporarily free, offered for placement on capital market, in terms of interest, foreign exchange etc..

The specific means available, insurance help create the conditions necessary to give concrete objectives on the national economy, expansion of external economic relations, tourism, etc.. Insurance contributes to the economic and social progress of the country by maintaining continuity of production process by protecting and defending the

⁵ Văcărel, I. și Bercea, F., Asigurări și reasigurări, Editura Expert, București 1993, pag. 43-44.

⁶ Văcărel, I. și Bercea, F., Asigurări și reasigurări, Editura Expert, București 1993, pag. 43-44.

integrity of public property, private, cooperative, personal, through the creation of additional means to people providing and saving.

Along with the development of production factors and relationships that are established between people in the production process, there was also a constant evolution of insurance of goods and people both in content and coverage and in terms of forms insurance used.

In conclusion, in an economy of uncertainty, household savings by providing foster financial market uncertainties in the economy may favor or penalize future economic development of wealth and insurance contract is issued subject to a claim of insurer and purchased by the insured.

After the field covered, insurance can be grouped as: property insurance, personal insurance and liability insurance. Of these, the first two groups will be studied further.

3. PROPERTY INSURANCE

This type of insurance plays an important role in the protection of movable and immovable property which a person has and covers a wide range of risks, favored by various natural disasters or accidents, whose production may cause serious damage. Modern economy, is subject to continuous changes in terms of introducing new technologies, development of the movement of land, air and naval as a result of national and global trade volume growth and the emergence of new fields requires increasingly focused on increasing to such insurance.

The purpose is to ensure the buildings belonging to the insured and their contents, fixed assets (machinery, equipment, facilities, equipment, tools, inventory items, etc..), or circulating means (goods, raw materials, semi, finished products and other materials circulated means). By exception, are similar throughout the building and providing facilities and equipment that ensure the proper functionality of the building: central heating, air conditioning, elevators, toilet articles, etc.. We include here the vehicles, animals and crops, making them subject to other types of insurance, provided separately.

The risks to which insurers offer protection, are generally the same but how can group differ in different packages of risk. Generally there are three packages that involve risks:

- Standard package, known as FLEX⁷, including risks of fire, lightning, explosion and collapse of aircraft;
- extended the standard package, which involves a selective expansion or cumulative standard package to certain risks: earthquake, floods and mudflows, storm, heavy rains, hail - direct effects, theft by burglary;
- Package all risks, all risks are included two additional packages break and vandalism, collapse and / or landslide produced from natural causes, the weight of snow and / or ice, sonic boom⁸, snow avalanches, accidentally falling bodies, strikes and civil disturbances.

On the basis of special provisions and pay additional insurance premiums, can be provided coverage for the following hazards: flood caused as a result of accidental breakage of water pipes and sewage pipes discharge; without burglary vandalism; fragile⁹ property specific risks of composition of buildings, movable or portable, which can be found and to address other than the last in the insurance policy, consequential damage, property damage products as indirect, a production insured risks, accidental damage produced goods due to surge, spring electric, magnetic induction, cage, pressure, etc..

The insurance policy in addition to insurance risks are highlighted and excluded from the insurance statements. The main exclusions, which insurers do not provide protection are: war, revolution, rebellion, insurrection, military dictatorship, confiscation, expropriation, nationalization, confiscation, sequestration, nuclear explosion, radiation or radioactive infestations, pollution or contamination of any cause, wear, fermentation, corrosion, oxidation, staining, the action of insects, rodents, fungi, birds and other pests, infiltration, settling land foundation, collapse or damage to buildings due to design errors and / or execution errors, serious fault insured or his agent, etc.

⁷ FLEXA is the English acronym of "Fire, Lightning, Explosion and Aircraft" - "fire, lightning, explosion and fall of aircraft"

⁸ Shock wave caused by aircraft

⁹ specific risks fragile goods are: variations in temperature, accidents of any kind (including animal action) of assembly / disassembly, removal of property insured and the initial installation of the wrong, the facts people (including vandalism, strikes or civil disturbances, actions of groups willing sorry)

Most importantly, that fairness depends on a property insurance underwriting, is the risk assessment to ensure. In this regard will be made its analysis, the insurance company representative, from two perspectives: the value for which the insurance risk will be taken and the amount shall be paid to take that risk in insurance.

Home Insurance (P_a) is the amount of money that a policyholder will pay the exact insurer, in exchange risk assumption by the latter, and is determined as a percentage of the sum insured (SA), is differentiated depending on whether the insured property, the frequency and intensity of production risks insured. Insurance companies distinguish the goods provided by risk classes, each class being established for a specific premium rate¹⁰.

$$P_a = SA \times C_p \quad (3.1)$$

Setting the level premium rate tariff, which is determined based on the amount of premiums to be paid by policyholders, have great importance in the insurance business. The provision of goods belonging to legal persons, most of the premiums collected are used to pay compensation. Part of the premium is not for compensation coverage is called the net premium or rate base, plus the additional premium which is intended to cover costs incurred by the establishment and administration of insurance funding for prevention, setting up funds reserves and the insurer making a profit. To calculate the net first start of the annual compensation index (I_k) which shows the compensation paid by the insurer within one year, calculated as the ratio between the total amount of compensation (S_k) and the total insured amount determined by multiplying the number of insured property (N_k) and average amounts insured (V_k), the relation 3.2.

$$I_k = \frac{S_k}{N_k \times V_k} \quad (3.2)$$

Price index of annual compensation can calculate the average index of annual compensation is an arithmetic average annual compensation indices. By comparing the index average annual compensation claims with evidence is found some deviations in more or less, so if you would calculate the net premium based on the average index of compensation, proceeds from insurance premiums would not cover damage at a time.

To eliminate such a possibility, the index average annual compensation will be correct with added risk is obtained by calculating the standard deviation. In calculating the mean squared deviation, is recommended to abandon the average index of compensation, whereas the use of simple arithmetic average is appropriate only if the compensation rate should be uniform. Relative frequency (f_k) is calculated as the ratio between the number of goods compensated in year K (x_k) and total assets compensated in the reference period (n).

The mean compensation index (i) can now be calculated with the formula 3.4, is known as the annual compensation index and relative frequency.

$$f_k = \frac{x_k}{n} \quad (3.3)$$

$$i = \sum_{k=1}^n I_k \times f_k \quad (3.4)$$

Dispersion (σ_1^2) is calculated using the formula 3.9, and standard deviation (σ_1) is just the square root of dispersion relation 3.5.

$$\sigma_1^2 = \sum_{k=1}^n (I_k - i)^2 \quad (3.5)$$

$$\sigma_1 = \sqrt{\sigma_1^2} = \sqrt{\sum_{k=1}^n (I_k - i)^2} \quad (3.6)$$

¹⁰ Share specific premium rate is a built-established statistical basis, which varies from one insurer to another, depending on the calculation methods applied and added premium for each risk class and each package of risks in hand. The share of first final (PA), to be applied to calculate the insurance premium is determined by adjusting the specific premium rate correction coefficient calculated based on actual situation of exposure of each objective provided in part, factor that will determine and insurable or uninsurable objective, if not below a certain threshold.

Therefore, the net premium (p) is obtained by adding the index average annual compensation standard deviation, the relation 3.7, and the first raw (P) is obtained by summing the first net addition of first (a), the relation 3.8.

$$p = i + \sigma_1 \quad (3.7)$$

$$P = p + a \quad (3.8)$$

To determine the level of rates required to provide the reserve fund is used inequality Binayme - Cebâşev, where random variable (I_k) and the mean value of random variable (i), the relation 3.9.

$$P(|X - m| < \varepsilon) > 1 - \frac{\sigma_1^2}{\varepsilon^2} \quad (3.9)$$

Insurance premium calculated using the relation (3.1) will be paid either in advance and in full, in which case some insurers offer discounts or in a number of installments. In the case of the first installment in several installments, its validity is directly linked to compliance maturity payment of premium rates, if not longer required insurers to honor claims.

Franchises is another important element of the insurance contract, which has following functions¹¹:

Encourage risk control measures: some policyholders are willing to spend time, effort or money to help prevent damage that, if they occur, will be paid by the insurance company. For example, a person may waive the installation of an alarm system against break-when he knows that the insurance company will cover damage resulting from theft. If the insurance policy provided an excess, the insured will be encouraged to install such a system because it is aware that in case of theft, you have to pay some of the damage.

Reduces costs incurred by the insurer in about compensation: most times, when small amounts of damages, the insurer's administrative expenses incurred to settle the case for compensation may be greater than the amount actually paid to the insured as compensation, there is franchises involves reducing the number of claims, facing the insurance company because they are eliminated claims for damages of little value.

Reduces the insurance premium which the policyholder must pay: as reducing excess costs incurred by the insurer in connection with compensation, it shall determine, by also reduce the premiums paid by the insured.

Property insurance typically ends a period of one year and at the request of policyholders may be closed for periods less than one year. May be exceptions to this rule, security agreements for goods covered by collateral (bank loans), where the policies can be closed for the multi-annual period to period for which established security (full repayment of the loan).

4. CONCLUSIONS

Universe economic, social, political and natural living, acting and moving people is loaded with uncertainties, are increasingly recognizing that an operating system to achieve a future result, operates by definition in a situation of uncertainty, even if specific situations are characterized by varying degrees of risk, uncertainty or even indeterminacy. Risk and uncertainty are matters of choice, however, they are simply human condition.

To address the risks, so you can control in a way or another and to counter or mitigate their negative consequences, man invented the plane, a tool that predicts the most important parts of future work, carried out the essential correlations between the factors of production and proportions of combination and substitution of micro-level and basic priorities of the national economy, allocating a large share of material resources, money and power employment and business oriented. The plan contributes to widening the range of certainty and uncertainty in restricting the scope of a given economic space and time horizon. By recognizing the risks and uncertainties, traders

¹¹ Constantinescu, D.A., *Tratat de asigurări – vol.I*, Editura Economică, Bucureşti

improve their behavior, enhance and refine their knowledge and, through them, are able to operate more effectively or even to exploit.

The existence and human development can not be thought of without risk. Our only chance is still so realistically aware of the risks to which we are exposed, to seek a proper assessment as to identify their most optimal ways to control these risks.

The specific means available, insurance help to create the conditions necessary to give concrete objectives of national economic development, expansion of external economic relations, tourism, etc., helping to achieve economic and social progress of the country by maintaining continuity of production process by protecting and defending the integrity of public property, private, cooperative, private by creating the population and provision of additional means of saving.

In an economy of uncertainty, providing promote household savings by the financial market, uncertainties in the economy may favor or penalize future economic development of wealth and insurance contract is a conditional debt issued by the insurer and the insured purchased. Increase economic efficiency of different organizations is conditional on the existence of scientific leadership, based on good knowledge of economic laws, knowledge of operational and accurate supply and demand on domestic and foreign markets, the dynamics of prices and tariffs, technological trends, and the how to use the resources available to them.

REFERENCES

1. **Achim M. Lucian**, *Asigurările de bunuri și persoane în economia cunoașterii*, Editura Economică, București, 2008, ISBN 978-973-709-371-4.
2. **Bistriceanu D. Gheorghe**, *Mică enciclopedie de finanțe, monedă, asigurări*, Editura Universitară, București 2006;
3. **Bistriceanu, D. Ghe.**, *Sistemul Asigurărilor din România*, Editura Economică, București 2002;
4. **Ciurel V.**, *Asigurări și Reasigurări: abordări teoretice și practici internaționale* Editura All Beck, București 2000;
5. **Constantinescu A. D.**, *Tratat de Asigurări, vol.I +II*, Editura Economică, București 2004;
6. **Dobrin M., Tănăsescu P.**, *Teoria și practica asigurărilor*, Editura Economică, București 2003;
7. **Văcărel I. Bercea F.**, *Asigurări și Reasigurări*, ediția a II-a, Editura Expert, București 1999;