

## THE IMPACT OF HOME INSURANCE FOR THE PORTFOLIO OF INSURANCE COMPANIES

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### Abstract

*The insurance domain has a very important status in the globalization context and social transformation.*

*Insurance, in law and economics, is a form of risk management primarily used to hedge against the risk of potential financial loss.*

*Every year the cost of damages caused by floods and earth flow reminds authorities about a controversial motion: mandatory home insurance*

*In this paper I will present the mandatory condition of home insurance, work home, protocol home and holiday home of people and firms, also the relation between insurant and insurance company, the rights and obligations of each part involved, licensing of insurance company witch interact and the establishment of the Reinsurance against Disaster Company. To determine the importance of this insurance, a risk analysis fundamentals and a risk financing decisions is needed. For this analyze we must taking in consideration the houses and the possibilities of insurance companies factors.*

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### 1. The Mandatory Home Insurance

Romania is the only country in Europe to create a legislative framework to introduce a compulsory insurance for homes against natural disasters.

In 2000, Turkey has implemented with the help of the World Bank, a similar law. In this case, the degree of penetration of insurance was up 17%.

Japan, a country frequently hit by earthquakes, has a system of home insurance and insurance premiums are high. For this reason, only 5% of homes are insured.

In California, providing housing is administered by a private company without state intervention and compensation are received only by those who have signed an insurance contract.

In Florida, this insurance product covers only storms.

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Insurance companies have declared themselves dissatisfied with their current rules on compulsory insurance for housing. These take as their starting point the fact that the project does not take into account the needs of the market

Arguments Presidencies insurance based on the basic principle of insurance: the transfer of risk from a person to a person authorized by the Commission for Supervision of Insurance. But if the current draft legislation can talk about an aid fund, taking into account the definition of risk: the future event possible, but uncertain, with the result wrong.

To support the allegations above are considered the case of housing built in flood or houses „with red splat ", where there may be talk of a risk, but rather a certainty. This is because homes in flooded areas will be flooded with security if the rain over the quota allowed, and buildings „with red splat" will certainly fall in an earthquake exceeding a certain degree. For this reason, so far, insurers have not signed such contracts, regardless of the requirements owner, or if you still have signed contracts of insurance (in the case of loans), the premium was very high.

Basically, the current legislative framework by the owners of these homes is indemnifying the money to those who have built solid houses. From this perspective, one can say that this new system is a form of social solidarity required.

By introducing this system, we can say that we return to the year 1995. The difference is that when most owners do not even know that they had secured housing, as the premium was charged with paying tax. After it was removed, the degree of coverage in insurance dropped from an average of 90% to 6.2% for urban households, and only 1.8% for households in rural areas.

In the new system, local authorities seek to identify the owners and send a notice with the premium attracting non-punishment with a fine of 100 lei and 500 lei.

Management system will organize a structure called Pool Insurance against Disasters (PAID). This structure is organized as a joint stock company which will manage the fund at risk for the payment of sums insured in the compulsory system, in the event of natural disasters, by companies authorized to conclude contracts of insurance for this product, to compensate owners.

From this legislation does not provide what happens to this company and the insurance system, under which an insurer goes bankrupt or another insurer wants to enter into this system

Experts argue that developing detailed rules to govern the criteria for compliance to subscribe to that company management, the transfer reinsurance and the reserve for finding insured damage.

The legislative framework is part of "The reduction of risk in the event of natural disasters and preparing for emergencies", implemented in accordance with the provisions of the Law nr.389/2004 for the ratification of the loan agreement between Romania and the International Bank for Reconstruction and Development .

This product is to cover the risks of natural disasters such as earthquake, flooding and landslides.

The legal framework covering only two types of housing:

- Buildings with the reinforced concrete or exterior walls of burnt brick, or any other materials resulting from a heat treatment and/or chemical - home type A - to a maximum of 20000 ensured value and a premium of 20 euro

- Buildings with exterior walls of wood, stone or other natural materials, subject-and heat treatment or chemical - home type B - with a maximum of 10 000 ensured value and a premium of 10 euro.

Annexes that not make up the body together with homes, and goods inside the home cannot be insured.

Owners who have an insurance policy against disaster at the time of entry into force of the law are not obliged to sign a new contract.

Where owners receiving welfare, the premium will be supported from local budgets, based on the amounts of revenue breakdown of the state budget for social aid.

In co-ownership, ending a single insurance contract, regardless of the owner cannot be done. Insurance premium will be paid by each owner in relation to the share held.

The amount insured and the premium can be changed periodically, depending on the price of the real estate market, real estate developments in the structure and the rate of inflation, and the frequency of occurrence of risks insured. This change is the decision by the Insurance Supervisory Commission, based on economic and technical documentation provided by the PAID with insurance companies accredited.

If the owner wants to provide homes to more than the sum assured foreseen by law, or wants to cover other risks, may conclude a contract additional voluntary. In the insurance is mandatory sign an additional specification, which sets all the risks agreed to be covered and the total sum insured.

The premium can and paid in full, ensuring 365 days, or in part, rate of 50% of the total, providing 182 days. Premiums subsidized, in whole or in part, the payment will be made in full and in advance. With at least 45 days before the expiry of the validity of the policy.

The insurance shall enter into force at zero hour of the day following that has paid the premium against disaster.

The local public administration authorities have the obligation to provide a list of all construction PAID purpose of homes, including the purpose of social homes. This list will contain the name and owner name, address of the residence tax, tax identification code and the number of register nominal role only. These data are rechecked annually. In turn, PAID transmit monthly list of owners who have not yet signed contracts of insurance, and the first due for each. The section from each of the municipalities will send notification by registered mail to all debtors.

Insurance premium for this product is deductible in calculating income tax for the owner who paid full value.

It has been estimated that the subscribed premium in the first year will be about 130 million, but more than half of that amount will be used for the reinsurance premium.

Regarding the request for compensation, it can be carried home owners, successors in title of the owner (where he died) or other persons designated as beneficiaries in the insurance contract.

In the event of claims compensation will be played within 15 working days from the date of completion of file damage. Payment will be made in the bank account opened by the insurer at the nearest bank to the address of the dwelling affected, or in an account specified by the policyholder.

After payment the insured sum decreases with the compensation. If the owner wants reunification of the amount insured, it will pay an additional premium, calculated as a percentage of the total premium, corresponding to the amount insured unused.

The insurance company may refuse to pay compensation if it has not received compensation within 30 days from the date of the risk insured. If there proof that it was in the country at the time of the event, this period is extended by 15 days.

If the policyholder has signed a contract and voluntary, PAID supports the minimum amount insured, and the remaining sum insured is supported by insurers.

The home insurance against natural disasters will become mandatory from 1 July 2009.

The following is presenting the impact of the insurance product on the insured and the insurer.

From the perspective of the insured, it has the ability to provide or not provide.

## 2. The Model

If the owner prefers not to ensure, is not a natural disaster, the initial income  $y$  is not affected, and the policyholder is liable to pay the fine prescribed by law. But when the owner refused signing a contract of insurance and natural disaster occurs, in addition to the fine, more support and financial loss.

In the first case, the income is:

$$y_1 = y - a \quad (1)$$

Where:

$y$  - the original income of the owner

$a$  - the fined between 100 lei and 500 lei

In the second case, the income is:

$$y_2 = y - a - L \quad (2)$$

Where:

$L$  - Caused financial loss of a decision natural disaster. This loss cannot be influenced or the likelihood of loss can not influence.

If the owner decides to sign an insurance contract, but only for the minimum amount, then the income is amended with the first payment of insurance:

$$y_3 = y - pq \quad (3)$$

Where:

$pq$  - the insurance premium for home insurance for housing is a maximum of 20 euro

$q$  - the sum insured, if this insurance product is up to 20 000 euro

$p$  - Share premium, which may cause the relationship  $S = pq$ , therefore, is 0.1%.

In this case, the income is  $y_3 = y - 20$ .

Given that home owner decides to sign an insurance contract, the insured sum, if an undesirable event is produced, then the income is amended as follows:

$$y_4 = y - L - pq + q \quad (4)$$

Where:

$L$  - Caused financial loss of a decision natural disaster, which may be lower, higher or can equal the maximum insured amount required.

If  $L < q$  or  $L = q$ , then:

$$y_4 = y - pq, \quad (5)$$

Which shows that the policyholder not felt a loss?

If  $L > q$ , then:

$$y_4 = y - L_1 - pq + q, \quad (6)$$

Where:

$L_1$  -additional loss suffered by the insured, which exceeds the amount of the maximum insured required. In this situation there felt a loss that can be avoided by signing a contract of voluntary insurance.

Policyholder pays the insurance premium  $pq$  without knowing the nature of states, with the consequence of the reduction in income for both the state, but receives the sum assured, if the event occurs unwanted. The state of nature 1 represents the nature of the event does not produce unwanted and the state of nature 2 represents a situation in which the event occurred involving an unwanted loss for the insured.

To determine the restriction in the budget revenue in the two states, using equations (3) and (4), and the income. Thus,

$$y_4 = y - L + (1 - p)q \quad (7)$$

And using,  $q = \frac{y - y_1}{p}$  from  $y_3$ , the budgetary restriction is:

$$y_4 = y - L + \frac{1 - p}{p}(y - y_3). \quad (8)$$

In terms of mandatory home insurance for the budget restriction is given by the relationship:

$$y_4 = y - L + \frac{1 - 0,001}{0,001}(y - y_3) = y - L + 999(y - y_3). \quad (9)$$

Budgetary restriction can rewrite as follows:

$$(1 - p)y_3 + py_4 = (1 - p)y + p(y - L). \quad (10)$$

In the case of mandatory home insurance, this relationship becomes:

$$0,999y_3 + 0,001y_4 = 0,999y + 0,001(y - L) \quad (11)$$

Where:

0,999 - the right price on a unit of monetary income in the event that is not a natural disaster

0,001 - the right price on a unit of monetary income in the event that there is a natural disaster

$0,999y_3 + 0,001y_4$  -the costs involved in rights between the two states of nature

$0,999y + 0,001(y - L)$  - The initial allocation of income insurer, in the two states.

Tilt the right budget, which is the rate at which the policyholder may

Transfer came from the situation in which there is a natural disaster, and the situation in which the event takes place unwanted, through the insurance contract is:

$$\frac{dy_4}{dy_3} = -\frac{(1-p)}{p} = -\frac{0,999}{0,001} = -999. \quad (12)$$

Considering  $\pi_s$  the probability attached to insured to the nature of state  $s$ , such  $\pi_1$  for the nature of state 1 and  $\pi_2$  for the nature of state 2, and using relations (32) and (33), and that relationship  $\pi_1 + \pi_2 = 1$ , then:

$$\pi_1 y_3 + \pi_2 y_4 = y - \pi_2 L - q(p - \pi_2). \quad (13)$$

In the case of mandatory home insurance is found that:

If  $p < \pi_2$ , then the share premium is less than the probability attached to the insured for the occurrence of a natural disaster, and is favored because the policyholder pays below the level of risk. The level of risk is higher than 0.1%.

If  $p = \pi_2$ , then share premium equal the probability attached to the insured status of nature 2. In these circumstances, the risk is 0.1%. The area at risk of flooding is impossible

If  $p > \pi_2$ , then the share premium is greater than the probability attached by the insured in the event of a natural disaster. Thus, the policyholder pays more than the level of risk. This rule applies to the optional insurance.

### 3. Conclusion

Demand for insurance is at the basic training portfolios of insurance companies. Where there is a high demand for a particular insurance product, designated class product that will have a significant weighting in the portfolio. Otherwise, the share will be insignificant.

In the case of mandatory home insurance, owners will refer to companies that offer bonuses, or who may pay a premium rate lower for optional insurance. This product will lead to the diversification of the portfolio of insurance companies, and help with housing class insurance to increase their share.

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