

PORTOFOLIO DECISIONS OF INSURANCE COMPANIES

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Abstract:

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

Lately, few Romanian insurance companies have been overtaken by international companies. The appeal of national companies is determinate by the real assets and financial assets owned by those companies and, of course, the market potential.

To decide means to take a favorable position for a certain point of view regarding a subject or a problem and to chose the best at that particular juncture from many possible ways, to achieve a certain mean or to resolve a problem.

1. INTRODUCTION

Lately, few Romanian insurance companies have been overtaken by international companies. The appeal of national companies is determinate by the real assets and financial assets owned by those companies and, of course, the market potential.

The insurance market in Romania is in a continuous developing stage. This development comprises both the services quality and the number of operators but also the supervision authority.

To function, an insurance company needs the approval of the Insurance Supervisory Commission. This commission had the role of legislate, supervise and impose the legal requirements but also to promote the insurance activities in Romania.

To better understand the insurance domain and the insurance companies' placements we must define the following key terms:

- The insurance activity represents the act of present, intermediation, transaction, closing insurance and reinsurance agreements, premium collection, prejudice satisfaction, regress and retrieval actions but also investments and capitalization of own stock.
- The insurance represents the option through an insurer constitute a insurance found, from subscription form a numbers of insurants, exposed at certain risks, and compensate them if they have damages.
- Reinsurance represents the option of an insurer to insure himself to other insurer, the first been called the reinsured and the other, reinsurer.
- Joint-insurance represents the option of two or more insurers to submit to the same risk, each one with a share.
- The insured is a person who has an insurance agreement with an insurer.
- The insurer is corporate body authorized within the legal terms to exercise a insurance activity, a branch of an insurer from a third stat or a branch of a insurance company from another member state that has the authorization from the Insurance Supervisory Commission from the originally stat.
- Disaster is an event or a series of events that inflict substantial damage in a short period of time

- The risk sum is the difference between the insurance sum and the mathematic reserve assessed for the insurance agreements to cover a certain risk.
- The found of free subscribed capital is the sums from the members of the mutual company have subscribed.
- Insurance portfolio represents the sum of insurance contracts closed by an insurer.
- Subscribed insurance premiums represent the premiums takings and future takings, including the reinsurance premiums taking and future takings, from all the insurance and reinsurance contracts from a specified time reference.
- Cashed insurance premiums represent the sum of all cashed premiums, including the reassured premiums, from a specified period of time, before any deduction.

2. MARKOWITZ MODEL

The relationship between risk and profitability was firstly described by Markowitz.

He showed that in conditions of certitude the option for a portfolio can be made through dispersion analyses and the profit ratio expected for that portfolio.

Since 1952, Markowitz warned the investors about the fact that they should be interested in the volatility and the risk of the investments they made, not only about their profitability, in order to reach an optimum investment.

In 1990, Harry Markowitz was awarded the Nobel Prize for economy with the article 'Portfolio Selection'.

His theory concerning the portfolios selection represented an important step forward because before that, the portfolios management patterns were based on the incomes generated by the investment opportunities and considered their profitability as being significant.

Markowitz is the one who introduced the notion of risk. In his theory, Markowitz gives the risk the same importance as to the notion of profitability, and proposes the dispersion as a measure of this.

The risk of the diversified portfolio depends on the adverse movements of all the titles and of the individual dispersion of their profitableness.

Markowitz proved that an investor can reduce the volatility of his portfolio and can dictate its increase of profitableness at the same time.

Starting from the profitableness and the risk of a diversified title portfolio, Markowitz founded a pattern applicable in the portfolio theory domain.

The hypothesis underlying this pattern refers both to the investor's behaviour and to the titles behaviour.

The hypothesis concerned with the investor's behaviour is:

The investors have aversion to risk and pursue the maximization of the utility.

The risk is described by the profitableness dispersion and its known and accepted by the investors.

There is a probability law, which refers to the repartition of the profitableness, possible to achieve on the title holding period.

The investors use profitableness and dispersion to make decisions.

Referring to the title behaviour, it is considered that the titles, of which the portfolio is made of, are risky titles, characterized by a certain hope of profitableness, dispersion and covariant with the other selected titles.

For the portfolio selection there are two stages:

In the first stage the value titles existing on the market are analysed in order to establish the optimum proportion of titles inside the portfolio.

In the second stage, based on the analysis from the first stage, the future performances of the value titles are predicted and there is established a titles portfolio that can offer the maximum

profitability. In this phase scenarios are being elaborated regarding the risk evolution and the future profitability, based on the previous predictions.

Markowitz model allows the investor to decide the options that satisfy the criterion profitableness – risk, always pursuing the maximization of the profitableness and the minimization of the risk.

The application of this pattern allows the achievement of that title combination that can offer the lowest risk level, by the determination of the portfolio with the absolute minimal variant, and also it allows the determination of the efficiency border on which the optimum portfolio is situated.

The efficiency border begins by the determination of the portfolio with the absolute minimal variant predicted by the investors with the biggest risk aversion.

The elimination from the efficiency border of the specific component of the individual risks of the titles in the portfolio leads to the reduction of the portfolio risk.

Using the Markowitz average-dispersion theory, the investors can get to the optimum portfolios.

The optimum portfolio analysis represents the essence of the portfolio decisions.

A definition of the optimum portfolio could be that it represents the lowest risk portfolio for a certain profitableness ratio, in other words it is pursued the highest performance of an indicator, watched by the investor, keeping the level of the others indicators. Moreover, in the case of optimum portfolios the spreading is minimal.

By the formation of the optimum portfolio is intended:

- Reaching the given profitability at a minimum risk, case in which is preferred certain profitability and a minimum risk is pursued.
- Reaching the given risk and a maximum profitableness, case in which exceeding a certain risk level is not desired but the reach of the maximum profitability.

Concluding, we can say that the optimum portfolio satisfies the utility function of the investors that present aversion to risk.

The majority of the patterns in the portfolio theory, although they are perfect from the logical and construction point of view, when they are applied they simply don't lead to the estimated results.

Inside these models a perfect market is analyzed. On this market there is no dominant investor and

also there is no investor that can affect the titles course, taxes or contributions are not taken into consideration or the costs concerning the transactions. The titles can be divided continuously, and any investor has free access to the information. A perfect market can also be efficient.

The information about a title is lying in its course. The analyze of this course is what it renders the best the value expression of that title.

The information about a title can be both of favourable and unfavourable nature. The favourable information make the potential investors buy, leading to the course rising. As for the unfavourable information, the potential investors don't buy and the course falls. Thus, the title course fluctuates in a random way, and the new information appears by chance.

In order to determine whether a market is efficient or not it is necessary to test which type of information among all the available information is reflected in the title price.

In conclusion, it can be said that it is difficult to constitute optimum portfolios, especially if we consider the existence of the uncertainty in the case of the title price evolution on a long term.

The investors are setting themselves various objectives to be reached. These objectives differ in accordance with the investors' interests regarding the profit and the risk brought by the investment. It can be taken into consideration a big profit with a high risk or with a low risk but with a smaller profitability.

The investment in a sole title can lead to high profits, but the risk is also very high in the case this title value falls. In this situation the investor is taking a maximal risk on a long term. After a statistical analysis it is gotten to the conclusion that the titles speculation can bring great benefits on short terms, after which the invested capital must be reoriented to the acquisition of other titles.

It is very important to analyze the contribution of a title to the risk and to the profitableness of the portfolio in which is included. This analysis started from the diversification.

In certain situations it is possible to make portfolios that have a lower risk than the one of each title of which is made of.

Also the diversification leads to the existence of a minimum risk portfolio. This portfolio has the minimum positive risk, excepting the case in which the correlation coefficient reaches the minus one value and the risk is null.

A title is chosen to be included in a portfolio according to its behaviour inside the portfolio, and not according to its individual characteristics. Even if a title is very risky but is correlated weakly with the titles from the portfolio, can bring a mild contribution to the portfolio risk. But if the correlation is negative, the title is attractive due to its diminishing effect it brings to the portfolio risk in which is included.

The risk of a title depends of the portfolio in which is included. The investors are observing the investment of the money they own in the portfolios with low risk titles.

An efficient portfolio is desired. This portfolio is the one that has the lowest risk for an expected turnover.

The investor's strategy is the one where the multitude of his desires meets the multitude of his possibilities.

The multitude of possibilities is given by the efficiency frontier which is obtained from the multitude of the investor's anticipations concerning the individual titles, while the multitude of wishes is built on the indifference curves that reflect the investor's preferences from his utility function and are obtained from the utility function.

The investor will only consider the efficient portfolios; he will only choose the one that corresponds to the tangent point of the two curves. This point illustrates the optimum portfolio.

The investor will choose the portfolio in accordance with his aversion for risk. If his aversion is strong, the investor chooses the portfolio that is situated on the left side of the efficiency frontier corresponding with the lowest risk level, otherwise he will choose the portfolio situated on the right side of the frontier.

3. INSURANCE COMPANIES' PLACEMENTS

The insurance companies are bound to invest the cashed sums to sustain the potential damages, to cover the operating costs and to ensure profit for the shareholders. Some operating expenses are given to reinsurance.

The most part of the placements are from assured moneys.

These placements must be made so that the insurance companies don't become incapable to pay the potential damages.

For this reason, the insurance companies are obliged by law to constitute technical reserves. The 6/10.oct.2001 norm comprises the categories of admitted assets to constitute these technical reserves, the rules of displacement placements and the liquidity coefficient.

Admitted assets to constitute technical reserves are: state titles, local authorities emitted titles, banking accounts, banking deposits, real estate, immovable, investments funds and movable assets.

These assets must be appraised to be technical reserves.

In case of state titles, local authorities' emitted titles are evaluated taking in consideration the nominal value and interest rate from the beginning through the evaluation date and the accepted value is 100% of that value.

In case of banking deposits in LEI and banking current accounts are evaluated taking in consideration the nominal value without the interest. Evaluation is made considering the course of value market communicated by the National Bank of Romania at the end of financial exercise.

In case of real estates and buildings, the evaluation is made at their actual market value. This actual market value is made by a third party legal entity, with the approval of the Insurance Supervisory Commission. The value taken in consideration is the least of the third evaluation methods (market contrast, operating cost, market performance).

In the case of investments founds placements, listed on an official stock exchange, the evaluation is made vis-à-vis the market value. This value is fixed at the end of financial exercise, and if the day of end of financial exercise is not a banking day, the last negotiating day before that is taken in consideration.

For debentures and other fixed income titles, the evaluation is made taking in consideration the nominal value.

The technical reserves can be scattered this way:

- State titles can make 100%
- local authorities' emitted titles can make 25%
- Banking deposits cannot surpass 60%
- Real estate and building investments can make 40%
- Market share, debentures and other fixed value titles cannot surpass 20%
- Other assets cannot surpass 20% , except reinsurance credence if they are not older than 3 month.

The liquidity coefficient is an important indicator in case of insurance companies and is the report between the liquid assets and short term debentures that must be paid to assureds.

The liquid assets are: state titles, capital (in current accounts and pay offices) and banking deposits. These deposits must not exceed 50% in only one bank and not more than 20% if the bank is from the same financial group or is a significant shareholder.

The liquid assets must be at least 50% of the short term debentures of the insured.

This coefficient proves how ready an insurance company is to grapple the claim from damage payments of their insured customers. This coefficient must be above one.

The European norms oblige that this coefficient must be at least 1, but many companies have bigger coefficient.

Another important indicator for the insurance companies is the solvability margin.

The mandatory solvability margin is the report between the assets surpasses the value of the debentures and is imposed by the Insurance Supervisory Commission.

The available solvability margin represents the elements of capital form that can be taking in consideration in the calculation *the mandatory solvability margin*.

The Insurance companies' placements are made taking in consideration the assured portfolio.

In the case of traditional portfolio investments long term and zero risk like state titles and banking deposit will be acquired.

If the companies have a unit linked type of insurance, they invest in share market on the local and international market. For this companies, the placements made on local market are state titles with discount or with interest emitted by the Ministry Of Public Finance, denominated in LEI or other currency, banking deposits, but also market shares quotable at Bucharest Stock Exchange and the placements on international market are husbandry by investments founds.

The most important factor in choosing the was placements are made it's not the performance but the liquidity.

When placing moneys, the insurers deals with problems like legislative limitation concerning external placements, the lack of types of available instruments but also the lack of a ratings of municipal debentures. Most of insurances are made on long term, especially life insurance, while most financial placements are a most on medium term.

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