RELIABILITY MARGIN-SINE-DIE CONDITION FOR THE PERFORMANCE OF INSURANCE COMPANIES

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A. Reliability margin

The solvability margin is in fact the excess represented by the available assets' value that exceeds the value of certain obligations on short term. The excess referred to earlier, is in fact the reliability margin. This has been made up to have the certainty that the future obligations assumed by an insurer will be promptly paid. The reliability margin could be defined as the difference (excess) between the insurer's assets and its debts. It is made of own resources or free assets (assets that are not taken into consideration in covering predictable debts).

The reliability margin is as well, a surveillance instrument for the insurer's activity. If an insurer can't prove that it has the minimum reliability margin imposed by law, against him legal actions can be made by the surveillance institution.

In the European Union[1] there are rules regarding the determination of the reliability margin and warranty funds. Thus authorized insurers on general insurances and/or life insurances by rightful institutions from EU member countries, have to permanently have an **available reliability margin** according to the activity they carry on. The available reliability margin will be at least equal to the **minimum reliability margin**. Romanian insurers estimate the available reliability margin, as well as the minimum reliability margin, from the regulations[2] issued by the Insurance Surveillance Committee (ISC).

The available reliability margin is correspondent to all active assets free of any charges, less the intangible assts.

Whether an insurance company practices general insurances and/or life insurances, the reliability margin is calculated separately for each of the two categories, even if there are similar elements calculated. As a result, we specify the identical elements as designations that are calculated, for the two insurance categories, when the available reliability margin is determined. We talk about:

- Social subscribed and paid-up capital;
- Company reserves, less the technical reserves, meaning: reserves from capital premiums, reevaluation, legal, statutory, conversion, other reserves;
- The net profit resulted after deducting the dividends that are about to be paid, when this is the case, the loss of the insurer.

The available reliability margin is diminished with the value of the own shares that the insurer has directly.

[1] See European Insurance Committee, European Regulations in insurance sphere, 1996, p.69 and following ones.

[2] See ISC, Regulations regarding methodology of calculating the reliability margin at the disposal of the insurer that practices general insurances, minimum reliability margin and safety fund; Ditto, Regulations with the same title for life insurances, both published in Official Monitor, nr 615 from July 15 2005.

Besides the components presented earlier, in the calculation of the available reliability margin, we can take into consideration, from case to case, elements like the following:

- Cumulative preference shares or/and secondary loans, without these exceeding 50% of the lowest resulted value from comparing the available reliability margin with the minimum reliability margin. It is to mention that all these share and loan types, have to, ass well, tie in with a number of terms;
- Papers with undetermined duration and other papers that satisfy a series of conditions. If the conditions are satisfied then they can represent maximum 50% from the lowest value defined as earlier;
- If insurance companies ask for and can justify thins thing, other elements can be taken into consideration as well. For example, surplus values from underestimating the assets can be accepted, but these surplus values cannot have an exceptional character.

The minimum reliability margin for insurance companies that practice **general insurances** is determined either in proportion with the annual total of the gross subscribed premiums, or in proportion with the average volume of the gross damages paid in the last 3 financial exercises. If the insurance companies cover one or many risks like: storm, frost, hail or credit risk then in consideration will be taken the average volume of paid gross damages from the last seven financial exercises.

The total quantum of the reliability margin has to be equal with the highest level obtained with the following two methods:

a) The first method is based on the calculation that is made in proportion with the gross subscribed insurance premiums, as it follows:

$$M_s = [V_{pa} + P_r - (T_{pa} + T_{it})] \times \frac{T_{dn}}{T_{db}}$$

Where: M_s= minimum reliability margin

V_{pa}= the volume of gross subscribed insurance premiums from direct insurances in the last financial exercise, respectively in all the three or seven financial exercises referred to earlier.

P_r= subscribed premiums from receptions in reinsurance during the last financial exercise;

T_{pa}= total gross premiums canceled during the last financial exercise;

T_{it}= total excise taxes and taxes afferent to the gross subscribed insurance premiums, included in the calculation (V_{pa});

T_{dn}= total gross damages paid in the last financial exercise by the insurance company after reinsurance cessions (therefore the total of net damages);

T_{db}= total gross paid damages from the last financial exercise.

We specify that $\frac{T_{dn}}{T_{db}}$ from the last financial exercise, under any circumstances, cannot be less than 50%.

b) The second method of calculation a proportion with the damages of insured risks is made, based on the following formula:

$$M_s = [V_d + T_d + T_p - (T_{ri} + T_{pr})] \times \frac{T_{dn}}{T_{db}}$$

Where: V_d= volume of gross paid damages related to direct insurances during the three or seven financial exercise periods. We specify that damages from cessionaries or retro cessionaries are not deductable;

T_d= total damages that have to be paid as reinsurer;

T_p= total provisions for damages that have to be paid, made at the end of the last financial exercise, both for direct insurances and for acceptance in reinsurance;

T_{ri}= total setbacks collected in the three or seven financial exercise periods;

T_{pr}= total provisions or reserves for gross damages that have to be paid, made at the beginning of the second financial exercise, for direct insurances as well as for receiving into reinsurance.

In this case as well, the proportion $\frac{Tdn}{Tdb}$ from the last financial exercise, which will be taken into consideration, cannot be less that 50%.

Minimum reliability margin for insurance companies that practice **life insurances** is determined depending on the types of life insurances that are in the portfolio of the respective companies. Thus, for example, for life insurances which are not related to investment funds, the minimum reliability margin is obtained by adding the following two values (a + b):

$$a)=[\frac{4}{100}x\ (R_{mbad}+A_r)]\ x\ \frac{Rmdr}{Rmb}$$

Where: R_{mbad}= mathematical gross reserves regarding direct insurances;

A_r= acceptances from reinsurances;

R_{mdr}= mathematical reserves after deducing reinsurance cessions;

R_{mb}= gross mathematical reserve.

$$\frac{Rmdr}{Rmb}\geq 85\%$$

$$b)=[\frac{0.3}{100}x\ (S_{rb})]\ x\ \frac{Srr}{Srb}$$

Where: S_{rb}= gross risk sum[3], that is calculated before cessions in reinsurance;

S_{rr}= net risk sum, that is the risk sum retained as an obligation of the insurance company after cessions in reinsurance;

$$\frac{Srr}{Srb}\geq 50\%$$

Calculations from letter b) are referring only to insurance policies for which the risk sum is positive. It results that in the case from above, the minimum reliability margin (M_{sm}) will be:

$$M_{sm}=a+b$$

In general, practice from different European countries, but not only, confirms the fact that the minimum reliability margin cannot be in any case less than the paid-up social capital, in the case of insurance companies that practice only general insurances. For companies that practice life insurances, the minimum reliability margin that has to be permanently maintained, cannot be less than the paid-up social capital plus a certain quota, frequently 4% from the mathematical reserve afferent to life insurances.

The calculation methodology of the reliability margin- available or minimum- for general as well as for life insurances is established in regulations elaborated by the surveillance authority of insurance activity.

B. Safety fund

Both companies that have general insurances as well as those who have life insurances have to make up a safety fund. The purpose of this fund is to allow insurers to honor their assumed obligations and when the built financial resources from insurance premiums, as well as those afferent to technical reserves, are not sufficient for them.

The safety fund for the two insurance categories is built up from a part of the assets that are taken into consideration when calculating the reliability margin and it represents a third of the minimum reliability margin.

In the case of **general insurances**, practices by stock insurance companies, the minimum value of the safety fund established by the surveillance authority, according to regulations in Romania, is equal to the equivalent in lei of 2 million Euros at the time of the report.

For general insurances as well as for life insurances, the value of the safety fund in Euros mentioned earlier

[3] Risk sum is the difference between insurance requital (the amount due to the insurance holder or beneficiary of the insurance) and the mathematical reserve calculated for insurance contracts that cover death risks.

will be modified annually according to the changes in the European index of consumption prices from member states, published by Eurostat.

C. Solvency I and Solvency II

Determining and maintaining the reliability margin helps insurance companies, allowing them to overcome difficulties that could occur if insured events happen, which end up with greater loss than anticipated or unfavorable results from financial investments. Therewith, respecting the requirements regarding reliability makes it work as an important protection instrument of insurance holders' interests. As a result, not at all occasional, the reliability regime, with basis from the 70s, was updated in the first years of the twenty-first century by two Directives of the European Union wrote out in 2002. Here we remind the impact of the regulations established through project Solvency I.

Through Solvency I reliability was strengthen as a result of lifting the minimum level of subscribed social capital by establishing a safety fund. Also, by establishing basis principles of surveillance activity and putting a greater accent on measure to prevent the apparition on financial difficulties. This way conditions were created to insure the payment capacity of damages by insurance companies. We mention that starting 2006 it can be said that the level of the minimum social capital was replaced with the safety fund.

The regulations established by Solvency I regarding reliability are based on the fix rate method which does not allow reflection of the pluralism of specific risks of any insurance company. Therefore essential changes have to be made to the reliability regime in a risk orientated approach.

In these conditions the need for a new risk control instrument felt its presence. The bases of this instrument have been in the project of European Union Directive, present on the agenda for 2005 of CEA (Comite Europeen des Assurances). The mentioned project is known as Solvency II. Through this new project are forecasted for insurance companies, reliability limits and adequate methods regarding the entire risk management system that an insurance company uses.

In order to put in practice Solvency II the specific approach of Basel Agreement II is taken into consideration, which refers to banking system. It is a 3 pylon approach, namely:

- Pylon I regarding legal capitalization requests;
- Pylon II regarding the way of achieving activity surveillance of the insurance companies
- Pylon III refers to market discipline.

In pylon I it is pursued the establishment of a minimum level of paid-up and subscribed social capital, as well as the possibility of establishing it according to the reliability margin. This way it can be acted to guarantee a real protection of the insurance holder, in the terms of maintaining competition on the insurance market.

Pylon II is thus made in order to allow the creation of the framework that facilitates surveillance authorities' global evaluation of the way the insurance company manages the risks. This evaluation will firstly aim the general subscription strategy, damage rate and the insurance holder's protection by cession in reinsurance.

Pylon III aims the so called "discipline effect" of the insurance company's management and a rise in the organization transparency degree. Practically through this pylon the principles of providing information to the clients, rating agents and other interested parties will be shaped. All these will make possible an evaluation more concrete of the insurance company's financial stability.

From what we presented it results that putting in practice project Solvency II will lead to new steps in effectiveness and securing the unique market of (re)insurances. Harmonization of the requests regarding reliability and principles of surveillance will create the necessary conditions for European Union insurance companies to function in equal conditions.

Brussels officials estimate the Solvency II will be completely implemented in 2010.

As a conclusion, in order to achieve reliability of an insurer it is very important that his assets have an adequate structure, thus in need they can easily be transformed in liquid resources. As a result, regarding their scale, assets that are technical reserves of the insurer have to be in harmonized with his activity to guarantee the efficiency and liquidity of the investments made. This involves the appropriate diversification and dispersion of such investments.

The proposal we make, is that in Romania, the Insurance Surveillance Committee in its regulations, has to consider the regulations stipulated in project Solvency II.