Measuring the Performance of Insurance Entities

Sahlian Daniela Nicoleta
The Bucharest University of Economic Studies,
Faculty of Accounting and Management Information Systems

Abstract

Nowadays the performance of the economic entities has a fundamental role in the context under which the competition for each market segment became too closed, and the mechanisms of globalisation brush away the weakest. So the chance to survive in this competition increases considerably for those economic entities that discover and reduce their vulnerabilities very faster and implements performance management instruments that facilitate the identification, explanation, and solution of different lack of management skills.

The elements specific to the new global economy determined the modification of the requirements oriented to different economic entities, as well as the diversification of their responsibilities towards the whole categories of interest holders and society.

Within this new economic system, the economic entities could be perceived as some cells that influence the health of the whole organism. Thus, we could not talk about the viability of an economic entity in a competitive, unstable and turbulent environment, without performance.

Key words: measuring the performance, solvency, solvency margin, Minimum Capital Requirement (MCR), Solvency Capital Requirement (SCR).
J.E.L. Classification: G22, M40

1. Introduction

Performance is a Latin word and its significance is English. In Latin, the word performance consists of completing a proposed activity. "Toperform" involves realizing something that requires ability ora certain aptitude. In the economic domain, there are a lot of definitions of the performance. There are three main directions: the definition of the performance in function of the level of its objectives achievement, the definition of the performance in function of the value creation and the definition in function of the enterprise productivity and efficiency.

There is not performance independent on the proposed objectives. Someone who achieves the objectives is called a performing person. In Romanian economic literature, the enterprise performance is defined as follows:"an enterprise is performing if it is at the same time productive and efficient"(M.Niculescu, 1998)1. Sothe productivity represents the report between the obtained results and the means of achieving them and the efficiency represents the report between the obtained and expected results.

Performance = productivity+efficiency

There arethree notions associated with theconcept of performance (M. Ristea, 2005): economicity (obtaining the necessary resources to the lowest cost), effectiveness (maximizing the results obtained, starting from a quantity given by the resources or maximizing the quantity of resources for a pre-established result) and efficiency (results obtained for reaching the pre-established results).

Performance = economicity + effectiveness + efficiency

Today the concept of performance hasprogressed to a global approach including both the financial and non-financial aspects referring especially to the elements of social responsibility. If the financial performance was in the foreground in the previous century, today the economic entities realized that this is only the result of the race and deciding factor of the future races success. We call this global performance, in the context of the society sustainable development.

The entity global performance involves the fusion of economic, social and environment performances. The extent of the performance concept due to its use in all economic domains defined a new concept, namely the one of the performance management, approaching the performance as the main concern of the economic entity management.
All economic entities involve performance so that the performance management became not only a useful instrument but also an indispensable one, couldn't talk about performance without a proper management. In this context, the performance assessment is an important element for its management.

The performance assessment involves finding some indicators that could reflect as proper as possible the functioning of the economic entities. The identification and use of the proper indicators for the appreciation of the economic entities' performance involve their connexion with their long-term objectives, respectively with the defined strategy. Why is it so important the correct choice of the performance indicators? It is so important because these indicators offer an overview of the entity performance and evaluate the way how the entity strategy, through its implementation and execution, contributed to its value increase.

2. The concept of performance and its measuring at the level of the insurance entities

The outbreak of the most recent global financial crisis pointed out eminently an increase of the vulnerabilities at the level of the insurance systems.Many studies of this financial crisis underlinethe fact that one of the major causes that leadto its outbreak was represented by the existence of certainweaknesses of the regulation and surveillance frame. So, there is an international consensus concerning the revision and rethinking of the regulation and surveillance frame of the insurance activities, materialized in the approach of the authoritiestoimplementthe *Solvency II regime* on the 1st of January, 2016.

The insurance industry is characterised by an inversion of the classical business cycle: the insurance companies get extra bonuses, representing the remuneration for the services provided, before paying the settlement for injuries, namelyproviding the service they are paid for(R.D. Auerbach, 1989). The insurance contracts are, basically, the money exchanges for different periods of time (K.J. Arrow). The certitude of the contractual assignments of the policyholders, as well as the incertitude of the frequency and severity of the future injuries requests, represent different characteristics of the insurance policy. The law of large numbers is applied for estimating this incertitude. As the number of insured risks increases, the average loss comes closer to the estimated loss and the standard deviation becomes as lower as possible, almost zero (J.F. Outreville).

When the insurance societies invest in the collected funds, they also have the same risks as the other institutions of financial services. Furthermore, they have to face to some risks specific to their domain of activity as sub-quotation of the insurance bonuses, the wrong calculation of technical reserves, the unpredictable changes of the damage frequency, the inadequate reinsurance, etc. Finally, they could also deal with a series of general risks, common to all types of businesses: incompetent or dishonest management or a defective administration of the development strategies.

The main function of the insurers is to face up to these risks and to administrate them in order to allow them (or at least in mostcases) to fulfill correctly and completely their commitments to policyholders.This capacity of the insurers to respect their commitments is called **solvency**.According to Merriam-Webster dictionary, **solvency** is the **"**state of being able to pay debts", (A. Sandstrom, 2006). The debts concerning the insurance contracts are the expected requests and the related expenditures. The current value of these commitments, calculated based on the actuarial methods, is only an estimated value in the end.

For the public, namely for a person who regards out of the results of an insurer, the check of solvency is based on the analysis of the financial reports of the insurers. The surveillance authorities or different rating agencies publish the insurers' solvency margins and the public knows that *an insurer has a morepowerful financial situation if the solvency margin is higher*. In many countries, there are assessment agents that analyse systematically the financial situation of the insurers in order to supply information to the insurance market "actors". This information could help them in some cases to take correct decisions regarding their business strategy. Under these conditions, the **solvency margin** is a measure of the insurer's financial stability.

The solvency margin acts as a safety margin or buffers for the insurer's activities. Up to the payment of all current obligations, there are always uncertainties both regarding the final value of these obligations and the value of the assets used for their hedging. More than that, certain damagescould appear in the future and the insurer could not pay some of them only from the current resources without such a margin. The purpose of the solvency margin is *to protect the policyholder*. The future activities of the insurer are uncertain and the purpose of the minimum solvency margin is to guarantee that the insurer has enough assets to pay the future damages.

The solvency margin as surveillance instrument proved to be a mechanism that could generate some legal measures,in the case of an insurer that has not the minimum solvency margin required by the law. An insurer that has a reduced solvency margin could be the subject of an intervention from the part of the surveillance authority. This intervention could occurfaster if the solvency margin decreases under the minimum legally provided, and could occur before to be unobserved this minimum.

A reduced solvency margin could also involve the following:

- *the loss of confidence in the insurance market* that leads to the loss of business. This loss of confidence could also extend to other markets, as capital market, with influences over the price of assets.
- *the need to reduce the business* in order to prevent the intervention of the surveillance authority. This situation could lead to the loss of some advantageous business.
- *the need to reinsure more i*n order to maximize the protection against fluctuations.

A reduced margin of solvency also involves a more powerful investment strategy. Therefore, the insurers use to have assets that lead to a higher margin of solvency than the one required by the surveillance authorities.

3. Performance indicators and Solvency II

The notion of *solvency* is connected to the main requirement regarding that an insurer need to have *permanently* the value of assets higher than the value of its liabilities.

The problem is to determine *how higher* should be the value of assets than the value of the assumed liabilities so that the insurer to be solvent. Solvency II represents a set of European Directives that modify fundamentally more aspects of the European legislation in the insurance domain concerning the solvency. The first step for the new solvency system was to define the requirements this system had to answer to, namely:

- to protect the beneficiaries, assuring to the surveillance institutions a buffer interval of time, necessary to identify and remedy the negative phenomena registered within a company;
- to offer compatibility, transparency and coherence, creating an uniform field of action;
- to establish a set of beliefs concerning the margin of solvency, according to the real risks.

The calculation methodology of the minimum solvency margin should:

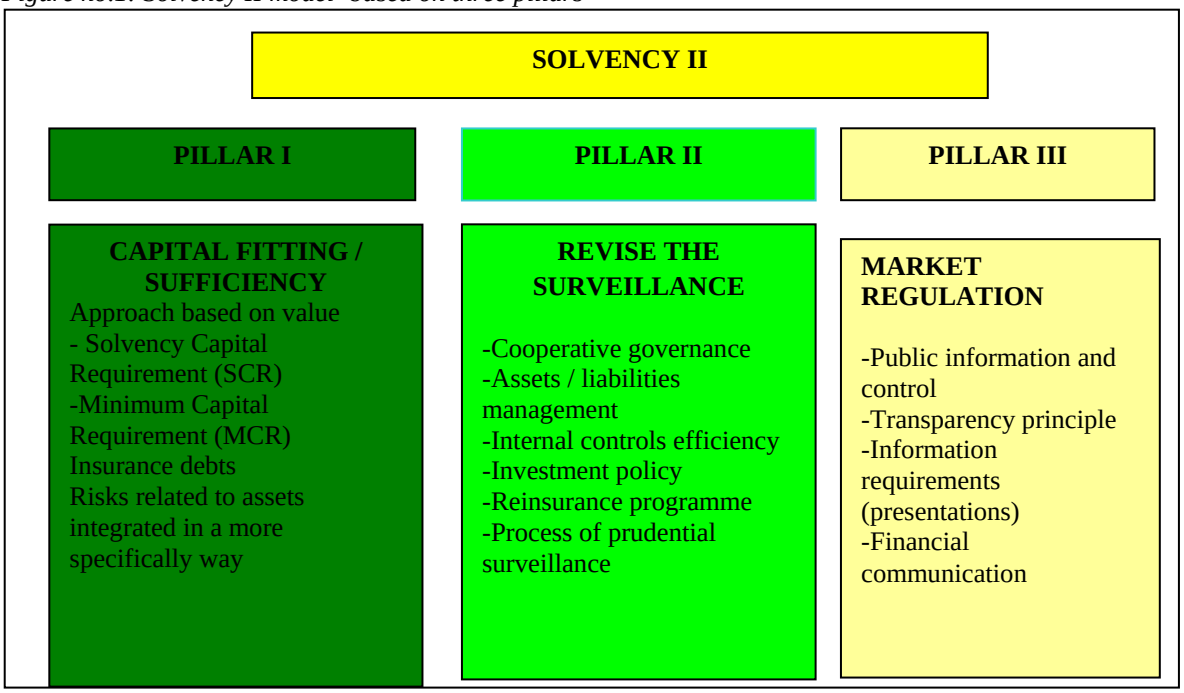
- allow the transmission of a correct sign to management, without encouraging the imprudent behaviour;
- avoid useless complications – a simple system, easy to understand and apply, that generates additional administration costs.

The purpose of the solvency monitoring is:

- to pull an alarm signal at the beginning of negative tendencies manifestation, not to supply an infallible guarantee against bankruptcy;
- to reflect correctly the evolutions registered on the market;
- to establish principles without being excessivelyrestrictive;
- to avoid as much as possible the generation of some additional financial reports, valorising the information of the current accounting reports;
- to avoid the excessive capital requirements that could lead to the decrease of the competitiveness of the European insurance market.

Solvency II is a model of solvency formed by the following three pillars:

Figure no.1: Solvency II model- based on three pillars



Source: Services Authority—Insurance Risk Management: The Path to Solvency II http://www.fsa.gov.uk/pubs/discussion/dp08_04.pdf

Pillar I – contains rules about financial resources – prudential rules for technical reserves, investments and capital requirements. The rules for technical reserves assessment will represent the main component of pillar I because the level of reserves will have a major impact on the solvency requirements.Solvency II wants to harmonize the calculation methods of the technical reserves and to obtain congruence referring to theInternational Financial ReportingStandards (IFRS).
CEIOPS (Committee of European Insurance andOccupationalPensionsSupervisors) recommends that "the capitals and debts assessment insurance should be based on the present value of the treasury flux (best estimates), with a risk margin". Introducing a market assessment of assets and debts represents one of the major differences between Solvency I and Solvency II and will influence solvency calculations' results.

The asymmetric information between the insurance societies and policyholders appear due to the fact that insurers have more knowledge about their own financial situation and about their behaviour on risk than the consumers (Munch, D.E. Smallwood). The insurance policies prices are inefficient in the disclosure of insurers' solvency due to some contrary selections and some moral risks (S.E. Harrington). Consequently, there is a compromise between the insurance company behaviour and the power of the policyholders to choose, because the lower prices are offered by the risky companies and the higher prices are offered by the safe companies. This thing involves, firstly, an increase of the insolvency risk and, secondly, produces a decrease. The intensity of the regulation should act over the possible values of this compromise, preventing the insurers with an excessive level of risk and monitoring their financial condition, in order to promote the proper protection of the policyholders (R. Eisen, W. Müller, and P. Zweifel). As in the banking system, pillar I containslegal capital requirements in order to determine the insurance solvency due to the fact that the capital has an important role in the consolidation of the capacity to pay extrafor monetary losses and to protect the policyholders and the claimant third parties' interest. Especially, the capital has a lot of important functions, as following(J.D. Cummins):

- reduce the lever effect and the value of the sale option of the shareholders;
- offers signals referring to the risk behaviour of an insurance company;
- allows an increase of the bonus rates;
- reduce the exposure risk to the debt rate

These functions have to be considered when it is estimated the optimum level of the capital. A higher capital level than the optimum level reduce the return to shareholders, in the same time, affects the share price, while a lower capital level cannot cover adequately the risks and so reduces the policyholders' protection (G.M. Dickinson).
The decisions concerning the capital level should consider the financial structure of the insurance companies and especially, their debt level. Please note that the capital is more expensive than the debt due to the higher benefit required by the shareholders and due to the taxes effects. Nevertheless, as the lever effect is higher, the risk of insolvability and the cost of the insurance company's capital increase (J.D. Cummins, J. Lamm-Tennant). An insurance company could have a lower level of capital than the optimum level attracting the new capital when necessary, but this thing is not always possible. For example, in case of disaster, the insurance company has to attract the new capital and the new suppliers would not pay the losses with complete goodwill. So, the company is forced to attract funds from existent shareholders or by imposing some higher prices for the next insurance policies (J.Cagle, S.E Harrington). The optimum capital level of the insurance companies is not the same with the level adequately established by the regulation authorities. The insurance companies choose the optimum level in function of their business characteristics, while the regulation authorities consider the policyholders' interest, implicitly, the insurance market stability (G.M. Dickinson).

The first pillar contains two capital levels: the *Solvency Capital Requirement* (SCR) – the capital level required to the insurer that allows him to deal with the unexpected losses and to fulfil the policyholders' obligations and a high level of honesty- and the*Minimum Capital Requirement* (MCR) – this requirement refers to the minimum level of capital where it is necessary the immediate intervention of the surveillance and regulation authority. In contrast to SCR, this requirement would not be calculated for all risks, its calculation would be simpler. The calculation would be implemented using **VaR strategy** at a significance level between 80 and 90 percentages.
The minimum capital level will be one million dollars for the general insurance transactions and two millions dollars for the life insurance transactions. The calculation of the capital requirements can be made based on a standard approach - *European standard approach (ESA)*- or based on an *internal model*, that was developed by a company and was investigated and approved by the surveillance authority. ESA should allow companies to measure and calculate SCR in a simple and correct way (Duțescu A.,et. All). One of the basic ideas of this approach is to use an approach based on a standardized factor to estimate and evaluate separately each risk component: market risk, risk to subscribe, credit risk, operational risk with the subcategories associated to these risks.

Pillar II – refers to the qualitative requirements applicable to insurers and reinsurers in the matter of internal control and risk management and to the revision of the surveillance process.
It also makes reference to the surveillance harmonization at the EU level, to the coordination in crisis, rights and responsibilities and transparency and accounting principles of the surveillance authorities. The key elements are the internal control of the risk models, the use of stress tests aiming technical reserves and assets, the managerial performances, the incongruities between assets, the own capitals and debts.

Pillar III–covers the regulations concerning the information that has to be sent to the surveillance organism and to the public. The purpose of this pillar is to create a market discipline, to offer to the investors, rating agencies and other interested parts an outstanding overview of the insurer risks. The disclosure requirements will depend a lot of on the measures implemented in pillar I and II. The reporting requirements will be based on Basel II approach applied in the banking sector and on accounting part referring to IASB (International AccountingStandards Board).The unfavourable information of an insurer could worsen an already changed existing situation of a company, so the next rules concerning the reveals should also consider the public interest to be informed and the competitive interest of the insurer.

It is important that the three pillars not overlap, imposing double regulations. Concerning the harmonization of the insurance regulations at the European level, the solvency is determined by the business nature and by the risk, not by the company location. Starting from coherence principle, the capital requirements of Pillar I ((MCR and SCR) will catch and quantify all risks from a balance sheet. CEIOPS developed a standard approach to determine these requirements. The calculations should be based on "correct values" (market values) for assets, capitals and debts. However, this

approach has not been completed yet and there are still necessary some improvements. So that, the internal models should be developed to satisfy the specific need of an insurance company.

4. Conclusions

Solvency represents an important aspect of the functioning regulation of an insurance company. So all insurance companies want to know exactly the optimal value of the capital, this thing is very hard to get. The modern financial management and the actuarial calculation offer different methods to take decisions concerning the capital structure and these have certain limits. Neither the most cautious management could guarantee the fact that the unforeseen obligations would not reduce the financial capacity of an insurance company and the governmental regulations could not prevent the insolvency. In most cases, the surveillance authorities' efforts prevented the policyholders' losses. However, the payment delay, the uncertainty and the philological effort that happen due to the insolvency problems of an insurer are very important for it financial situation.

After this research, we could conclude that one of the most important factors that determine the insolvency are:

- to subscribe, to constitute reserves and to solve the improper settlement request;
- the financial situation of the re-insured policyholder;
- the improper control of expenditures;
- incorrect transactions of agents, brokers or re-insured policyholders.

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