ECONOMIC-FINANCIAL ANALYSIS FOR INSURANCE AND REINSURANCE COMPANY

Titel NEGRU Lecturer Ph.D.
Faculty of Finance and Banks
Spiru Haret University

Abstract

An insurance company has a value as well as its contracts. The efficiency of a company or of a Profit Centre is measurable and the profitability of an insurance product may be quantified. It is possible to assess both company and its products, and take appropriate decisions by using precise criteria. There are methods that satisfy this classic need of evaluation. For the first part of this paper, we will examine the methods like Profit Testing, Embedded Value, Value Added and Total Rate of Return in the context of an endowment insurance product. Then, along with the same example, we will present a critical approach of these methods. We will see that these methods are not always easy to understand and that sometimes the Value Added and the Total Rate of Return are not able to directly show the profitability. Finally, we will perform a sensitivity analysis in order to determine the most influential parameters. This study includes examples of an endowment, a term insurance and an annuity.

Data presedent in this article are hypothetical.

Key-words: *profitability, profit testing, embedded value, value added, variability*

JEL Classification: G_{21}

For an insurance company, the economic-financial analysis, regularly carried out, generally involves to go through certain stages, which are underlined in this paper. To this end, in order to best describe the economic reality, real examples have been selected, to be similar with the ones in an insurance company that is active on the market.

1. *The analysis of the internal potential*

For an insurance company, its internal potential is being analyzed upon considering the following indicators:

a. **The labour productivity of a worker.** For instance, upon setting the size of staff in a company, based on competence and professionalism criteria, this indicator has registered a favourable evolution during the entire interval referred to.

The quality of labour has grown, and the earnings brought by each worked into the company has reached an average of 7,642.47 lei.

b. **The average number of insurance contracts per insurance agent.** The number of insurance contracts per insurance agent reached 40 in 2009, a downturn by 6.5% compared to 2008. The reason for this change is the decrease in the number of renewed insurance contracts. As a conclusion, productivity may increase even if the average number of insurance contracts decreases per agent.

One of the significant aspects of the economic viability potential is the correlation among the *turnover, salary output, number of employees, labour productivity and the minimum wage* **(Ica ≥ Ifs ≥ Ins and Iw ≥ IS).** For the insurance companies, the income-generating units are the regional agencies and/or divisions and, therefore, we will be applying these indicators to the specifics of the insurance activity.

Current issue	Indicators	2008	2009	2009/2008
1.	Income derived from insurance bonuses (I_{ca})	1604919	1029103.2	1.56
2.	Number of insurance agents (I_{ns})	210	200	1.05
3.	Labour productivity of an insurance agent (I_w)	7642.4714	5145.160	1.49
4.	Fund of insurance commissions (I_{fs})	44434.50	60160.1	0.74
5.	Value of average commission (I_s)	211.5929	300.8005	0.70

For the insurance company under study, there may be noticed the following relation among the above indicators: Ica >Ifs < Ins si Iw > IS. The percentage among the salary output index and the index of the number of insurance agents is not complied with, i.e. even if the company has witnessed an increase of labour productivity (as seen in the turnover), this change is not visible in the remuneration of the insurance agents (who has actually contributed to this positive results).

2. ***The analysis of expenses and earnings***

For an insurer, the insurance are as more efficient as the expenses derived from reimbursement and insurance policies and administration conclusion are lower.

The reimbursement paid and the compensation rate. The compensation rate has been fluctuating, ups and downs in terms to compensation frequency, an absolutely normal evolution for the insurance activity for each insurer. We need to mention that the compensation rate of the insurance agency has always placed under the average level registered for the total number of Romanian insurers, which proves a strong concern for the risk management.

For example, the value of the compensation rate was 0.77% in 2009, while the level of compensation for the whole insurance sector was 36% (calculated in terms of the value of all compensations and the total value of the subscribed bonuses) for the same year.

Indicator	2008	2009
Compensation rate	2.07%	0.77%

Insurance commissions. One may notice a decrease of the commissions paid to the insurance agents, where one of the reasons is the increase of the number of complex insurance policies that insure the large economic agents against multiple risks: accident insurance of workforce, insurance of goods and constructions owned by economic agents, civil liability of the manager, etc. Another reason would be maintaining, relatively constant, the number of insurance agents while the strictness in the activity of selection and recruiting the insurance agents is rising and so does the importance given to the professionalism of the selling activity.

Indicator	2008	2009
Paid commissions	60160.10	44434.50

The structure of costs. The company goes through a time when costs are being managed strictly. If we analyze the expenses in their entirety, we notice that the expenses rate at 1000 lei and turnover has been favourable, since it went down from 875 lei in 2008 to 738 lei in 2009.

Current issue	Indicators	2008	2009	Evolution 2009/2008	Percentage 2009
1.	charges from reinsurance net damages	147725	258205	74.79%	1.54%
2.	net operating charges	4421708	6456217	46.01%	38.55%
3.	other net technical re-insurance charges	272601	203093	- 25.50%	1.21%
4.	charges from placements	1483242	2409675	62.46%	14.39%
5.	extraordinary charges	0	0	0	0
6.	other charges	7020395	7422385	5.73%	44.31%
	total of charges	13345671	16749575	25.51%	100.00%

In terms of costs structure, we notice that the highest percentage belongs to the operating charges (38.55%), followed by the charges from placements (14.39%).

The charges from damages hold a low percentage in total, even though they have had the strongest dynamism, increasing by over 74% compared to 2008.

A favourable evolution is also registered for the indicator – net charges (as the ratio of the difference between the total of charges and total of compensations paid by the insurer during a year and the difference between the total of earnings and charges), as it went from 6.92 in 2008 to 2.78 in 2009.

The relative cost of the insurance activity. The relative cost of the insurance activity indicates, as a %, the percentage of insurance charges into the total amount of the cashed in bonuses. Normally speaking, the level of the relative cost for the insurance activity is under the threshold of 100%; but there might be cases when this value is exceeded. In this situation, the belief is that the insurer has had higher expenses than earnings, therefore placing himself in the losses area.

Indicator	2008	2009
Relative cost for the insurance activity	65.38%	57.49%

For the year 2009, a decrease in the insurance costs may be noticed, compared to the previous year. The quite low value of the insurance costs proves a good policy of tariffs and risk management and, in the long run, it allows the insurers to consolidate their financial resources in such a way that they will be able to face some possible catastrophic damages. The increase of the insurance costs percentage is, partially, caused by the positive evolution of earnings.

The structure of earnings. As part of the total turnover of the insurance company, the earnings coming from bonuses represent 53.07%, followed by the earnings from placements (17.61%). The growth rate of earnings from bonuses is favourable, exceeding the rate of the insurance field in the year of 2009 (i.e. 30.02% as par value).

Current issue	Indicators	2008	2009	Evolution 2009/2008	Percentage 2009
1.	earnings from re-insurance net bonuses	7405747	12032020	62.47%	53.07%
2.	earnings from placements	2305503	3992517	73.17%	17.61%
3.	extraordinary earnings	0	0	0.00%	0.00%
4.	other earnings		6648678	20.02%	29.32%
	total earnings	15251016	22673215	48.67%	100.00%

The net income rate, an indicator of the efficiency of an activity in an insurance company, calculated as a ratio between the difference of earnings total and the total of expenses in a certain interval of time, in the total of earnings, has also registered a favourable evolution, rising from 12.49% in 2008 to 26.12% in 2009.

3. ***The analysis of the company rentability, liquidity and solvency***

The indicators of the company's rentability express the degree in which the capital or resources use bring profit are presented in the below table. This table gives a quite good situation, in the sense that all the rentability rates are within mediocre intervals and each of them shows either a stagnation or a positive trend.

In other words, the company has a profit, but the value of the rentability indicators do not represent a special attractiveness for the possible investors.

Indicators of the company's profitability

Current issue	Indicators	Value/year 2009
1.	Rate of costs rentability R_c = Gross profit/Total expenses * 100	35.36%
2.	Rate of the earnings rentability R_v = Gross profit/Total earnings * 100	26.13%
3.	Rate of the total assets rentability R_v = Gross profit/Total assets * 100	9.03%
4.	Rate of the economic rentability R_v = Gross profit/Permanent capital * 100	9.52%
5.	Rate of the financial rentability R_v = Gross profit/Own capital * 100	14.46%

As far as the solvency indicators, we notice a high indebtedness, which do not raise any issues of financial balance on short term.

Indicators of the company's solvency

Current issue	Indicators	Value/2009
1.	General indebtedness rate R_c = Total debts/Own capital * 100	0.58
2.	The patrimony solvency R_v = Own capital/(Own capital + Borrowed capital) * 100	0.66

The liquidity rate refers to the ability of the company to honour its contractual obligations. This ability depends on the cash flows of the company, of the ratio between the assets and liabilities and on the nature of the available assets to cover the debts.

The liquidity of an insurer may be determined by comparing its availabilities, including the securities, with the value of bonus reserves and of damages. The liquidity of the insurance company was of 2.89 in 2009, compared to the recommended minimum value of 1, which allows the coverage of the bonds by converting the invested assets into cash, at the market price.

The immediate liquidity, calculated as a ratio between the liquid assets and the short-term debts was of 6.48 in 2009, reflecting the ability of the company to be able to deal with its short-term debts in a successful way.

4. *The analysis of the company's placements*

In 2009, the insurance company has a real, positive interest, normal for an economy with a controlled inflation, where the average interest on the banking market was a real negative one, triggering the depreciation of the invested funds and not their capitalization.

The annual average interest of the company shows a balanced ratio between the banking investments and investments in state securities, when the investment policy has mainly steered to the monetary market. As far as the share investmens, the insurance company holds shares on the Bucharest Stock Exchange and Libra Bank.

The objective for the next years is a greater diversity of the investment's portfolio. Thus, along with the investments in the monetary market, the aim is to increase the investments on the capital market and the real estate one. At the same time, there will be provided an immediate liquidity, large enough (short and very short-term), considering that the technical reserves of the company for the general insurance are funds being attracted for a maximum one year and that the company has to honour its obligations assumed for when catastrophic damages occur. Likewise, the capitalizations managed by the company on behalf of the insured may not be invested but in the monetary market, since it is a contractual obligation.

Conclusions

The main issue that the insurer has to face is, no doubt about, the low economic rentability. Two causes may be identified and that explain the low profitability of the company:

– high operating costs;

– the mediocre competitive potential of the strategic portfolio.

On a short term, the low rentability means the insufficiency of the trading capital, which leads to, on the one hand, to a treasury deficit and, on the other hand, due to leasing, to an increase of the financial expenses. On their turn, the high expenses will have a negative impact on profitability, thus we will have a catch 22 situation.

The sizing of the required resources:

– Funds that are required to accrue the share capital: 4,000,000 lei.

– Funds of annual investments of circa 25,0000 lei, to purchase computers, specialized software, train personnel and launch the latest promotion programme.

– Extra human resources: hiring 3 economists and 1 sale consultant, full-time.

– Material resources: the funds to be invested in supply will be proportionate with the turnover, and the purchases will be made from the traditional suppliers.

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