EVALUATION METHODOLOGY FOR THE INSURER DEVELOPMENT CAPITAL

Iryna Nyenno[*]

1. Introduction

The evaluation methodology of the capital volume, available for insurer development and market strategy realization was provided in this. The main idea of the methodology is creation of the forecasting information basis foundation under the integrated information basis, – group of revenue coefficients, group of profitability and own capital coverage coefficients, group of financial stability, reliability and solvency coefficients, group of sectoral development criteria. Financial indicator FDP (Financial Development Potential) is considered as a main tool of diagnostic the future financial strategy budget of the insurer.

2. Recent research and publications on the associated problems

Generalization of the theoretical approaches and practical experience of the insurers on the modern market lead to a conclusion about the absence of the complex decision-making criteria for evaluating the available amount of the capital for future insurer development gives not only the possibility to define the solvency, but as well to expose the reasons, which influence not only on the insurer financial state, but financial development, which is understood as the transfer of an insurer from one financial state to another, better one.

The theoretical research confirms that studied methodologies view different processes, sources and results of being. Received numbers and their dynamics may contradict one to another, concentrate on separate elements of the financial state, do not take into consideration certain elements of the financial enrichment and do not allow to make the complex evaluation of the insurer financial statement from the point of view of available capital, including Alenichev, Baranova [1, p.180-189], Furman, Plisa [2, p.136-142], Osadets, Yurchenko, Summarizing of the evaluation methodologies for insurer financial state shows that they are directed to the system retrospective analysis.

The level of the financial development is a consequence of the financial potential of the enterprise. Insurance business and strategic management theories are actively attempting to concern productivity and business processes with financial results, but as well mostly with a retrospective analysis by Gorbach, Lange, Nikolenko, Reytman, Utkin.

3. Definition of the unsolved parts of global issue, which are solved by the author

Nevertheless, the problem of creation the sufficient financial provision discovers the lack of the research concerned to generalization and integration of financial indicators as a methodology of financial enrichment of the insurer.

4. Purposes of the article

The purpose of this paper is to introduce a system of indicators to evaluate insurance company performance from the perspective of the availability of the capital, necessary for development. The methodological approach is accompanied with example.

5. Main content of the research with new findings of the study

Expertise of the state regulative and research approaches of Ukrainian and Russian scientists allowed to fix three independent directions of solvency and financial state evaluation:

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[*] Iryna Nyenno; PhD. of Economic Science; Odessa I. I. Mechnikov National University; Department of Economics and Management; Email: <inyenno@onu.edu.ua>

1. Rating approach, which examines insurance performance indicators (volume of insurance premiums, payments, reserves and guarantee funds, etc.), used by Romanenko [3, p.24-27], Vnukova [4, p.21-22], Zaletov [5, p.42-43].

2. Comparative approach, which is focused on the rates of growth of indexes of a separate company with the rates of growth of the insurance market on the whole, implemented by Piratovskiy, Kulikov, Shirinyan [6, p.31-38], Grishenko.

3. Approach based on the retrospective analysis of the financial and economic indicators, sometimes without taking into account the specificity of the insurance industry, applicated by Alexandrova, Bazilevich, Chernova, Paragulgov [7], Yuldashev.

In the paper it is suggested to create the forecasting information basis foundation under the group of revenue coefficients, group of profitability and own capital coverage coefficients, group of financial stability, reliability and solvency coefficients, group of sectoral development criteria and FDP. Illustration of the methodology is demonstrated on the example of JSC "City Insurance Company" ("CIC"), which is mixed capital insurer (table 1).

Tab. 1. Evaluation results of JSC "City Insurance Company" under the group of revenue coefficients

Coefficient	Year			
	2006	**2007**	**2008**	**2009**
Total revenue level , %	-2,373	-1,999	1,719	0,50
Investment revenue level, %	2,027	0,034	0,947	0,99
Investment volume, thous. UAH.	3727,75	718,15	736,30	1198,2
Investment earnings, thous. UAH.	284,4	9,8	347,6	524,7
Coefficient of the investment earnings	4,16	1,95	1,57	2,8
Relation between the profits from the insurance and financial activity	-3,49	-67,72	4,32	0,11

Source: Authorial computation

Under the group revenue coefficients the level of total and investment revenue is compared with. The negative profit in 2006 – 2007 was a reason of low total revenue level. Its rise in 2008 took place because of rise in investment one. The increasing coefficient of the investment earnings in 2007 – 2009 from 1,95 to 2,8 during the simultaneous rise of the investment volume as well is discovered the increase in investment revenue level in 2009. In the crisis year 2009 the total revenue falls from 1,72 to 0,5.

Financial policy of insurer is examined by the group of profitability and own capital coverage coefficients, which is enable to expose the dependence of the excessive use of loan capital, to define the necessity in increase of guarantee fund, insurance reserves and statute capital volume, to estimate the level of losses and charges (table 2).

As shown by the data in tab. 2, JSC"CIC" has the sufficient financial provision for the operational activity from the own turnover capital. The company does not have the necessity to attract credits, and in the year 2006 investigated its free capital. Level of the own capital coverage in 2009 increases till 4,29 (2,74 in 2008). Partly, it is concerned with the decrease in the insurance premiums. Profitability of the own capital is unstable because of the vibrations in the net profits.

Loss ratio is stable, at the same time the expense ratio has had tendency to be reduced, this fact, as well, improves profitability. On the other hand, profitability is badly influence because of the changes in the reinsurance level (from 0,20 to 0,58).

For finding out of the level of the financial stability of insurer the analysis under the other coefficient group of financial stability, reliability and solvency coefficients are recommended for assesment the data as it is put in table 3 [8, p.167; 9, p.369; 10].

Tab. 2. Evaluation results of JSC "City Insurance Company" under the group of profitability and own capital coverage coefficients

Coefficient	Year			
	2006	**2007**	**2008**	**2009**
Relation between statute capital and guarantee fund	1,31	1,44	1,42	2,91
Profitability of the own capital, %	-3,59	-4,18	4,03	0,166
Level of the own capital coverage, %	5,67	3,57	2,74	4,29
Coverage coefficient of the own turnover capital for acquisition business	1,009	0,997	1,018	0,99
Expense ratio , %	3,43	1,81	2,29	2,11
Loss ratio, %	61,6	66,1	63,05	58,95
Combined ratio, %	65,03	67,91	65,34	61,06
Relation between own premiums and premiums, transferred to the reinsurers	0,26	0,29	0,20	0,58

Source: Authorial computation

Tab. 3. Evaluation results of JSC "City Insurance Company" under the group of financial stability, reliability and solvency coefficients

Coefficient	Year			
	2006	**2007**	**2008**	**2009**
Normative solvency stock, thous. UAH*	4085,9	5771,7	7280,3	5670,9
Fact solvency stock, thous. UAH*	27254,0	26162,7	27217,1	29997,3
Financial stability coefficient	3,90	2,37	2,16	2,57
Financial criteria	-0,022	-0,018	0,014	0,098
Solvency, %	6,67	4,53	3,73	5,2
Coefficient of solvency change, %	112,96	174,09	276,60	777,9
Solvency coefficient (present liquidity)	1256,23	37,13	448,61	1451
Absolute liquidity coefficient	4,10	2,21	1,71	1,36
Financial Leverage	0,51	1,09	1,35	0,77
Reliability coefficient	1,94	0,92	0,74	1,31
Coefficient of the financial potential , %	4,57	3,92	3,96	2,83

Source: Authorial computation

As it is demonstrated by tab. 3, financial stability coefficient reflects that the revenues were significantly greated than expenses. It discovers that there is a normal balance between them. Substantial reduction of the financial stability criteria in 2007 and 2009 is explained by the profits decrease. Fact solvency stock decrease in 2007 and 2008 was concerned with the lack of liquid costs, for instance investigated. The same reason is confirmed by the solvency coefficient and Financial Leverage. Absolute liquidity rise is explained by the increase of the obligations. Thus we can assume that the free capital was put by the Insurer for development or investments.

Reliability coefficient shows the level of the risk operations coverage by the own capital of the insurer. In 2007 this criteria decreases, as some resources were used as the investments for the enough risky project. As the payback period of this project was more than one year, in 2008 we can see the continuation of the decrease. In 2007 – 2008 there was a decrease and in 2009 there is a rise.

The financial development trends of the insurer has to be estimated under the group of comparison with the basic insurance indexes with the market analogues, which shows the place and share of the insurer in relation to the insurance market as a whole.

6. Financial potential evaluation and interpretation of the results

In financial crisis environment estimation of the capital volume, which is allowed to become the part of the financial enrichment becomes extremely actual not only for the management of insurer but for insured, investors and financial partners.

Existing methodology systematization leaded to a conclusion about the absence of such a decision-making indicator.

Building the integrated information basis, (consisted of the groups of revenue coefficients, profitability and own capital coverage coefficients, group of financial stability, reliability and solvency coefficients and group of sectoral development criteria) is reasonable to be complemented with the suggested indicator FDP (Financial Development Potential) as a main tool of diagnostic for future financial strategy budget of the insurer development (formula 1):

$$F D P = F E - M F N = O\ cap + I R - (I\ pay + TC), \qquad (1);$$

F D P – Financial Development Potential;

F E – Financial Enrichment;

M F N – Moment Financial Needs;

O cap – Own Capital;

I R – Insurance Reserves;

I pay – Insurance Payments (indemnities);

T C – Total Costs.

FDP represents the changes in the receipts of insurance premiums, investment profit, insurance reserves, statute capital and other financial resources. Its dynamic characterizes both the process of accumulation and market activity, which is the process of the use of the accumulated financial resources.

If an insurer carries out exceptionally the accumulation, it loses the certain competitive advantages.

If an insurer will realize the spending only, sure it brings the financial potential and solvency down.

At the same time, if the FDP has the positive meaning, it shows that an insurance company forms financial potential of development, but so far does not use it, or uses not completely.

If FDP indicator has the negative meaning, this situation can be characterized as such two alternatives:

1. An insurer forms such a volume of own capital and insurance reserves, which is insufficient for coverage the insurance obligations and costs, and in this case the obligations are covered due to the current incoming premiums. Financial enrichment fund is not forming, and a company functions in the conditions of financial resources deficit. Own capital volume and insurance reserves volume is enough to cover the insurance obligations, but the financial potential is using more, than the formed volume allowed.

2. If financial potential equals or approaches to zero, it characterizes a situation from two positions. One of them testifies that an insurer has the enrichment for coverage of insurance and other obligations, but financial potential is not formed due to relevant sources. Second – an insurer has still enough capital volume for implementation the insurance obligations and he uses financial enrichment within the formed limits.

Selective calculation results of the formed capital allowed for spending in development, for the Ukrainian insurance companies can be seen in table 4:

Tab. 4. Sectoral development criteria, (thous. UAH.)
[Agency for the Infrastructure Development of the Ukrainian Stock Market]

Coefficient	Year			
	2006	**2007**	**2008**	**2009**
FDP, thous. UAH.	30155,2	41539,4	45048,2	38971,3
Result of the insurance business, thous. UAH.	1478,30	3028,10	7166,30	6407,9
Result of the financial business, thous. UAH.	4726,50	6567,70	9352,60	1387,4
Joint result of the insurance and investment business, thous. UAH.	6204,80	9595,80	16518,90	7795,3
Financial stability coefficient	3,90	2,37	2,16	2,57

Source: Authorial computation, Agency for the Infrastructure Development of the Ukrainian Stock Market

The computation shows that during 2006 – 2009 JSC "CIC" accumulates and uses the formed financial potential in its framework.

But, the decline in the results of insurance and financial businesses (from 45048,2 thous. UAH in 2008 to 38971,3 thous. UAH in 2009) is a sign of the competitiveness loss, because such a simultaneous reduce is a factor of absence of the source of financial development.

7. Conclusions

As a result, the use of the integrated information basis as an evaluation methodology for the insurer development capital provides the evidence that "City Insurance Company" solvency during 2006 – 2009 is reliable and stable, the financial development is positive. However, it is advisable to conduct some measures in the insurance and financial policy, including:

- attraction of the additional financial sources by emission;

- reduction of the reinsurance coverage;

- correction of the reserves investments methods, analysis and definition of the most reliable, than profitable tools;

- changing on the assortment with the introduction of the profitable "crisis" package for the client.

To force the insurer solvency it is reasonable:

- to increase the insurance tariffs on the inflation rate;

- to reduce the expenses by the savings from the outsourcing usage during insurance accidents expertise;

- to investigate the free costs for receipt the additional total revenue.

The research results witnesses, that the group of insurers with the Ukrainian statute capital form the financial enrichment, but almost do not use it; insurers with the mixed capital and especially foreign actively use the formed financial enrichment, however go out outside the formed enrichment volume and substantially increase the risk of insolvency. In the conditions of the system economic crisis phenomena the policy of the Ukrainian insurers is most acceptable.

The meaning of the indicator FDP becomes the supportive estimation of the capital exceed, which may become the part of the formed financial enrichment.

8. Research perspectives

The continuation of the scientific research is concerned to the ongoing introduction of the new rules of Solvency II introduced to the Ukrainian insurance market.

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Summary

In such a way, the suggested methodology helps to create the multilateral financial evaluation of the level of insurer capitalization for the purpose of perspective development. The generalization of the different approaches is made and besides the integrated system for evaluation is discovered. The methodology has certain theoretical and important practical value – for a concrete data of the insurer.

Keywords: insurer; solvency; capital; development.