

### February 2018, Frankfurt am Main

# METHODOLOGY FOR ASSIGNING RELIABILITY RATINGS TO INSURANCE COMPANIES – FULL VERSION

# TABLE OF CONTENTS:

1. General definitions	3
1.1 Scope of methodology	3
1.2 Default definition	3
1.3 Key rating assumptions	4
1.4 General provisions and regulations	4
2. Sources of information	6
3. Rating classes	7
International scale	7
4. Rating assignment process (reliability ratings and stand alone reliability	ratings) 9
4.1 Structure and order of analysis	9
4.2 Types of companies	
4.3 Range of weights	13
4.4 Rating scale	14
4.5 Rating score adjustments for stand alone reliability ratings	15
4.6 Rating score adjustments for reliability ratings	23
4.7 Additional restrictions	
4.8 Special order of assigning ratings "CC", "C", "D" and "E"	27
5. System of indicators	28
5.1 External factors of stability and corporate management	
5.1.1 Size factor and market position	
5.1.2 Corporate management and business-processes	
5.2 Insurance business	
5.2.1 Insurance portfolio	
5.2.2 Client base	
5.2.3 Reinsurance policy	51
5.3 Finance and investments	55
5.3.1 Liquidity and solvency	55
5.3.2 Structure of financial results	58
5.3.3 Asset quality	60



6. System of indicators for the Industry Sector Risk (ISR) score	64
6.1 Insurance Market Penetration	64
6.2 Section Insurance Market Density	64
6.3 Section Country Score	65
6.4 Adjustment Factors	65
7. The rules for the determination of the outlook on the rating of the financial reliability	66



# 1. General definitions

# 1.1 Scope of methodology

Rating-Agentur Expert RA GmbH (hereinafter referred to as the Agency) assigns ratings of financial reliability (hereinafter referred to as "reliability ratings" or "ratings") to insurance companies<sup>1</sup> (with exception for medical insurance organizations and insurance companies having a right to sign new contracts on the life insurance) (hereinafter referred to as "insurer" or "reinsurer" or "company" or "insurance company" or "rated entity") in accordance with this methodology.

This methodology is not used for assigning ratings to other financial companies (such as: banks, leasing, factoring, medical insurance organizations, microfinance organizations or insurance companies having a right to sign new contracts on the life insurance).

**Financial reliability of the insurance company** is the ability of the company to fulfill its current and future liabilities to the policyholders and beneficiaries within the frameworks of the insurance contracts, coinsurance and reinsurance contracts.

**Financial reliability rating** of an insurance company represents the opinion of the Agency on the ability of the insurance company to fulfill its current and future liabilities to the policyholders and beneficiaries within the frameworks of the insurance contracts, coinsurance and reinsurance contracts; and does not refer to other liabilities of the company.

**Stand alone rating of financial reliability** of the insurance company represents the opinion of the Agency on the probability of the fulfillment of current and future liabilities to the policyholders and beneficiaries by the insurance company within the frameworks of the insurance contracts, coinsurance and reinsurance contracts; without taking into account external stress- and support-factors.

# **1.2 Default definition**

Any of the following cases shall be considered as default by the Agency for insurance companies:

- License (licenses) withdrawal, if the insurance company cannot provide insurance service without such license (licenses). If the insurance company legally initiated the process of license revocation by its own initiative and the Agency considers that the company will fulfil all its insurance liabilities on time and in a full amount, the case will not be considered as default by the Agency;
- The company is in default on one or more of its insurance policy obligations. In order for the Agency to recognize an unfulfilled insurance obligation, this must be determined by a court of law;
- If a court of law recognized the insurance company as bankrupt.

According to the Agency's definition, the date of default is the date of the first case which occurred (or the only one of the above mentioned cases).

<sup>&</sup>lt;sup>1</sup> In order to rate an insurance company, this shall be licensed and/or regulated by the respective responsible body or bodies in the jurisdictions where the company operates.



# 1.3 Key rating assumptions

There are following rating assumptions:

- 1. There is a stable cause-effect relationship between the level of the financial reliability (hereinafter referred to as "reliability" or rating level) of the rated entity and the qualitative and quantitative factors, listed in this methodology;
- 2. Qualitative and quantitative factors can have a linear and non-linear effect on the reliability of the rated entity, the effect can be direct and reverse. Non-linear effect of factors is shown by using stress- and support-factors, that have a strong effect on the reliability rating (detailed description of the qualitative and quantitative factors, influencing the ability of the rated entity to fulfill accepted insurance liabilities, as well as description of their influence on the rating and the rating outlook are provided in the section "System of indicators");
- 3. The weight of each factor is determined according to the degree of its influence on the reliability;
- 4. Indicators can have "limited intervals" for their influence on the rating score; if the value of an indicator goes beyond the "limited interval", it does not affect the rating score. If the value of the indicator is higher than the benchmark of the maximum score (for the indicators having positive correlation with the reliability), it does not have an additional positive effect on the rating score. If the value of the indicator is below the benchmark of minimum score (for the indicators having negative correlation with the reliability), it does not have an additional positive effect on the rating score. If the value of the indicator is below the benchmark of minimum score (for the indicators having negative correlation with the reliability), it does not have an additional positive effect on the rating score. If the value of the indicator is below the benchmark of minimum score (for the indicators having positive correlation with the reliability), it does not have an additional negative effect on the rating score (with the exception for the indicators having stress-factors). If the value of indicator is higher than the benchmark of minimum score (for the indicators having negative correlation with the reliability), it does not have an additional negative effect on the rating score (with exception for the indicators having stress-factors).
- 5. All macro risks are covered by the Insurance Sector Risk (ISR) score, which includes Country Credit Environment rating score as a part of assessment.

# 1.4 General provisions and regulations

In accordance with the Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies and further amending or supplementing regulation (hereinafter – the CRA regulation) Rating-Agentur Expert RA GmbH strictly follows the requirements regarding the maintenance of its methodologies:

- The Agency uses the methodologies that are rigorous, systematic and continuous;
- The Agency discloses on its website information on the methodologies, models and key rating assumptions accompanied with the explanation of assumptions, parameters, limits and uncertainties surrounding the models and rating methodologies.



- Methodologies, models and key rating assumptions such as mathematical or correlation assumptions used for determining credit ratings are properly maintained, up-to-date and subject to a comprehensive review on a periodic basis.
- There are internal procedures established for regular review of methodologies in order to be able to properly reflect the changing conditions in the underlying asset markets.
- The Agency monitors and reviews its methodologies on an ongoing basis and at least annually, in particular where material changes occur that could have an impact on a rating. The Agency monitors the impact of changes in macroeconomic or financial market conditions on ratings.
- There is a review function responsible for periodically reviewing the Agency's methodologies and any significant changes or modifications thereto as well as the appropriateness of those methodologies, where they are used or intended to be used for the assessment of new financial instruments.
- The Agency publishes the proposed material changes or proposed new rating methodologies on its website, together with a detailed explanation of the reasons for and the implications of the proposed material changes or proposed new rating methodologies, inviting stakeholders to submit comments within a period of one month.
- The Agency notifies ESMA of the intended material changes to the rating methodologies or the proposed new rating methodologies when the proposed changes or proposed new rating methodologies are published on its website. After the expiry of the consultation period, the Agency notifies ESMA of any changes due to the consultation.
- When the rating methodologies are changed, the Agency immediately discloses the likely scope of ratings to be affected, informs ESMA and publishes on its website the results of the consultation and the new rating methodologies together with a detailed explanation thereof and their date of application. The affected ratings are reviewed as soon as possible and no later than six months after the change, in the meantime placing those ratings under observation. The Agency re-rates all ratings that have been based on those methodologies if, following the review, the overall combined effect of the changes affects those ratings.
- Changes in ratings are issued in accordance with the Agency's published methodologies. The Agency ensures that the ratings and the outlooks it issues are based on a thorough analysis of all the information that is available to it and that is relevant to its analysis according to the applicable rating methodologies. The information the Agency uses in assigning ratings and outlooks is of sufficient quality and from reliable sources. The Agency issues ratings and rating outlooks stipulating that the rating is the Agency's opinion and should not be regarded as a recommendation to buy, hold or sell any securities or assets, or to make investment decisions.
- Changes in the quality of information available for monitoring an existing rating are disclosed with the rating review and, if appropriate, a revision of the rating is made.
- If the Agency becomes aware of errors in its methodologies it shall immediately notify ESMA about those errors and all affected rated entities, explaining the impact the on ratings and indicating the need to review issued ratings. If errors have an impact on



ratings, the Agency shall publish them on its website and correct the errors in the methodologies.

# 2. Sources of information

The following sources of information are used for assigning a rating score:

- Questionnaire filled by the rated insurance company according to the Agency's form;
- Financial statements prepared under local GAAP for the last two years;
- IFRS reporting certified by an auditor (including the auditor's report and notes) for the last two complete years;
- Articles of Association of the insurer in their current version;
- Documents regulating risk management of the insurer;
- Documents determining development strategy of the insurer;
- Documents regulating corporate governance of the insurer;
- Data obtained during interviews with management of the insurer;
- Information from the mass media and other public sources.

When assigning credit ratings, the Agency may use a combination of different sources of information, listed above (for instance, some data could be sourced from IFRS statements and other data local GAAP statements. However, if data were available in both IFRS and local GAAP, the preferred source of information for the Agency would be IFRS compliant financial statements).

When assigning ratings, the Agency can reclassify some accounting entries, on the basis of their economic meaning. For example: long-term liabilities can be reclassified to the short-term liabilities if the creditor has a right to call for early repayment. In this case, financial ratios shall be adjusted in order to provide comparability of different rated objects.

The Agency can take into account future changes in the financial statements on the basis of the forecasts of the Agency, plans of the rated entity and (or) if the Agency has reliable information on changes in the structure of assets and liabilities. For instance, if the Agency knows that the rated entity has plans to buy another company; such investments shall be deducted from the capital of the rated entity.

If the information provided by the rated entity is not enough for the analysis, the Agency has to refuse from assignment / maintaining current credit rating. If the rated entity has existing rating in this situation, this rating shall be withdrawn without confirmation.

Adequacy of the information for the assignment of the credit rating shall be determined on the basis of ability / or disability to make an assessment in accordance with this methodology.

The main criteria used to determine the adequacy of the information are following:

- Ability to make an analysis of the rated entity on the basis of factors, listed in this methodology (see Section 5. "System of indicators");
- Ability to make an analysis of all stress- and support-factors, listed in this methodology.



If the mentioned criteria are satisfied, but the Agency was not provided with the full set of information requested, the Agency has a right to assign rating taking into account adjustments for the score of some factors, which shall be approved by the rating committee. As a general rule, such adjustments shall be conservative (have negative influence). Absence of information shall be considered as negative information by the Agency.

The Agency checks the reliability of the financial statements and other information provided by the company in accordance with the internal procedure of the Agency. If the Agency detects signs of significant non-reliability of the financial statements and other information provided by the company, the Agency refuses from the assignment / maintaining of current rating. If the company has current rating in this situation, this rating shall be withdrawn without confirmation.

If the Agency detects signs of minor manipulation with the financial statements and other information provided by the company, the Agency can reduce the score for some factors (for instance, the score for corporate governance), or assign "other" stress-factor.

If two or more sources of information contradict each other and the company does not provide proper explanation of these contradictions, the responsible expert uses the source of information that better and more conservatively reflects the risks of the rated object.

If the company has radical changes in its business model and there is no representative information about risks of the new business model, the Agency refuses from the assignment / maintaining of current rating. If the company has current rating in this situation, this rating shall be withdrawn without confirmation.

This methodology is used to assign the reliability ratings and stand alone reliability ratings to insurance companies, specialized in all types of insurance, except life insurance.

# 3. Rating classes

During the process of rating assignment (for both types of ratings – stand alone reliability rating and reliability rating), the Agency uses international scale. **All public documents contain ratings only according to the international scale.** 

# **International scale**

The company can be classified into one of the following rating classes:

# AAA: The highest level of reliability

The level of the company's capability to fulfill all its insurance liabilities in the long-run is the highest. The level of risk for insurance liabilities is the lowest.

# AA: Very high level of reliability

The level of the company's capability to fulfill its insurance liabilities in the long-run is very high. The level of risk for insurance liabilities is very low.

# A: High level of reliability

The level of the company's capability to fulfill its insurance liabilities in the long-run is high. The level of risk for insurance liabilities is low.

7



### **BBB: Moderately high level of reliability**

The level of the company's capability to fulfill its insurance liabilities in the long-run is moderately high. The level of risk for insurance liabilities is moderately low.

### **BB: Sufficient level of reliability**

The level of the company's capability to fulfill its insurance liabilities in the long-run is sufficient. The level of risk for insurance liabilities is moderate.

### **B: Moderately low level of reliability**

The level of the company's capability to fulfill its insurance liabilities in the long-run is moderately low. The level of risk for insurance liabilities is moderately high.

### **CCC: Low level of reliability**

The level of the company's capability to fulfill its insurance liabilities in the long-run is low. The level of risk for insurance liabilities is significant.

### CC: Very low level of reliability, some of insurance liabilities are not fulfilled on time

The level of the company's capability to fulfill its insurance liabilities in the long-run is very low, some of insurance liabilities are not fulfilled on time. The level of risk for insurance liabilities is very high.

# C: The lowest level of reliability, pre-default level, part of insurance liabilities are not fulfilled

The company is not fulfilling some of its insurance liabilities, and it is expected that the company will not be able to meet fully its insurance obligations.

### **Class D: Bankruptcy**

The company is in the process of bankruptcy.

### **Class E: License withdraw or liquidation.**

The company is going through the liquidation procedure or the company's license was revoked.

One of the above rating levels (the company's reliability and company's stand alone reliability) that can be assigned to the company (excluding AAA and ratings below CCC) may be supplemented with (+) or (-) sign depending on the value of the rating score.



# 4. Rating assignment process (reliability ratings and stand alone reliability ratings<sup>2</sup>)

# 4.1 Structure and order of analysis

**4.1.1** The reliability analysis of insurance companies has several levels. During the process of the rating assessment, the Agency calculates a **preliminary reliability rating** (only for internal purposes) and, after adjusting for the ISR (see the logic scheme below), obtains the **final international reliability rating**. The **preliminary reliability rating** is the assessment of the insurance company's reliability taking into account support- and stress-factors, which have external nature. The **stand alone reliability rating** is based on the analysis of insurance company's **financial stability** taking into account only support- and stress-factors, which have internal nature.

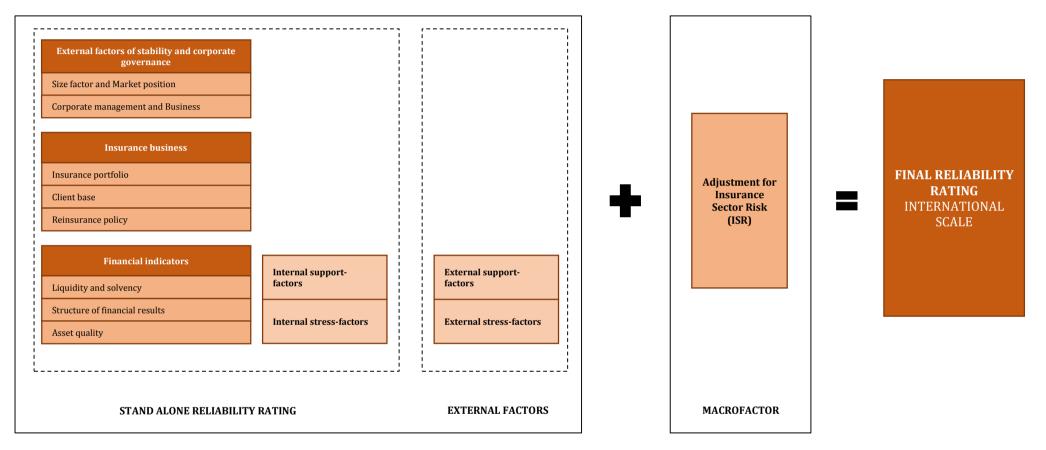
Thus, the insurance company's rating is based on the analysis of three types of factors and the industry adjustment:

- Stand alone reliability;
- Significance of internal support-factors and exposure to internal stress-factors;
- Significance of external support-factors and exposure to external stress-factors;
- Adjustment for the ISR.

<sup>&</sup>lt;sup>2</sup> Without taking into account external stress- and support-factors.



Graph 1. Main integral factors of the rating analysis



#### PRELIMINARY RELIABILITY RATING

\* The weights which the preliminary reliability rating and the macrofactor carry towards the final reliability rating in international scale range depending on the value of the macrofactor.



**4.1.2.** The analysis of **company's financial stability** includes the analysis of three sections: *external factors of stability and corporate governance (1), insurance business (2) and financial indicators (3).* Each section is divided into several large integral factors.

Several indicators are assessed within the framework of analysis of each integral factor. The scores for indicators within each integral factor may be equal to one of the following values:

1	Factor (indicator) has positive influence on reliability level
0,5	Factor (indicator) has moderately positive influence on reliability level
0	Factor (indicator) has neutral influence on reliability level
-0,5	Factor (indicator) has moderately negative influence on reliability level
-1	Factor (indicator) has negative influence on reliability level

Assessment of some indicators can be continuous (non-discrete) and the score for these indicators can be in the range from "-1" to "1".

4.1.2.1 The score for each integral factor is determined as a weighted sum of the scores for separate indicators within each integral factor. Weights of the indicators are provided in the first part of each section (Section 5), describing integral factors.

4.1.2.2 If one or more factors are not relevant for the analysis of a particular type of insurance company, the weight assigned to these factors shall be equal to zero. As a consequence, the weights of the other factors shall increase proportionally.

4.1.2.3 The rating score for the insurance company's **financial stability** is determined as a weighted sum of scores for all integral factors, weighted in a certain manner depending on the type of company (Sub-section 4.2.3).

**4.1.3** In order to determine the **stand alone reliability rating of the company,** the rating score for the insurance company's financial stability shall be adjusted taking into account internal support- and stress-factors.

**Internal support-factors** include internal financial resources of the company, as well as factors which are not assessed or insufficiently assessed in the rating model because of specific characteristics of the rated company or temporary influence of such factors (temporary influence of the factor means that the rating score for the insurance company decreased temporarily in accordance to the opinion of a member of the rating committee, and significant increase of the rating score is expected for the next quarterly date; in other words, temporary influence of the factor means that there is a high probability of absence of such influence in three months).

**Internal stress-factors** include the risk of sudden and significant reduction in the company's solvency or the risk of license revocation, and depend on the characteristics of the company's activities as well as on management decisions. Furthermore, these factors also include risks which are not assessed or insufficiently assessed in the rating model because of specific characteristics of the rated company or temporary influence of such risks (temporary influence of the factor means that the rating score for the insurance company increased temporarily in accordance to opinion of a member of the rating committee, and a significant decline of the rating score is expected for the next quarterly date; in other words,



temporary influence of the factor means the high probability of absence of such influence in three months).

**4.1.4** In order to determine the **preliminary reliability rating of the company**, the rating score for stand alone reliability rating shall be adjusted taking into account external supportand stress-factors.

**External support-factors** take into account financial and administrative resources which are external to the company, and which can be used in case of deteriorating financial condition, as well as factors which are not assessed or insufficiently assessed in the rating model because of specific characteristics of the rated company or temporary influence of such factors.

**External stress-factors** include the risk of sudden and significant reduction in the company's solvency or the risk of license revocation, and slightly depend on the characteristics of company's activities as well as on management decisions, but mostly depend on external factors. This type of factor also includes risks which are not assessed or insufficiently assessed in the rating model because of specific characteristics of the rated company or temporary influence of such risks.

4.1.5 The preliminary reliability rating is then adjusted by the ISR score in order to obtain the final reliability rating according to the international scale (see the logic scheme above). Rating-Agentur Expert RA GmbH publishes **only final ratings in accordance with the international scale**.

# 4.2 Types of companies

**4.2.1.** The range of the criteria for some indicators differs depending on the type of insurance company business activities. There are two groups of insurance companies depending on the **business type**:

- *Retail company*: more than 50% of contributions come from insurance of individuals;
- *Non-Retail company*: less than 50% of contributions come from insurance of individuals.

In case of *reinsurance companies* the share of retail insurance in reinsurance premiums should be assessed.

The final decision is made taking into account the responsible expert's assessment of the following parameters:

- 1) *The level of development of branches and agent network* (whether the company has sufficient infrastructure for retail sales);
- 2) *Dependence on sales channels* (e.g. if an insurance company has an agreement with a certain railway company and, according to this agreement, the ticket offices sell accident insurance policies together with train tickets. In this case, most of the contributions are received by this insurance company from individuals, but the company is non-retail);
- 3) *"Captive company"* (e.g. an insurance company which insures only employees from a related entity will not be assessed as retail);



### 4) Other parameters.

**4.2.2.** The range of the criteria for some indicators differs depending on the company business size as compared with regional peers. There are **two groups** of companies depending on the business size:

- *Large companies*: the company belongs to the 1<sup>st</sup> or 2<sup>nd</sup> size class<sup>3</sup>;
- *Medium or small companies*: the company belongs to the 3<sup>rd</sup> size class or higher (4<sup>th</sup>, 5<sup>th</sup>, etc.);

**4.2.3.** Rated companies are divided into **five groups**, which have different weights for indicators:

- 1. "Universal companies". Universal companies are those companies which are not included in the other groups listed below;
- "Specialized companies". Specialized companies are the companies for which the share of one single type of insurance in the insurance portfolio (other than "car / vehicle insurance") exceeds 50% (types of insurance are considered broadly speaking, for example: aviation risks insurance provides comprehensive insurance for airplanes<sup>4</sup> and liability insurance for airline companies);
- 3. "Captive companies". Captive insurance companies are the companies with the following characteristics:
  - 1) More than 50% of insurance premiums are received from the owners and their affiliated companies;
  - 2) More than 50% of insurance premiums are received through the sales channels associated with the owners and their affiliated companies;
- 4. Reinsurance companies (Professional reinsurance companies).

If the insurance company can be attributed to several groups, the responsible expert shall use the following rule of "transitivity":

Signs of Group 4> Signs of Group 3 > Signs of Group 2

# 4.3 Range of weights

Weights of the integral factors are not fixed and depend on the share of reinsurers in the company's contributions for six months, nine months or a year.

External factors of stability and corporate management			
Size factor and market position	X1 * (1 – X(RE)) / (1-X5)		
Corporate management and business-processes	X2 * (1 – X(RE)) / (1-X5)		
Insurance business			
Insurance portfolio	X3 * (1 – X(RE)) / (1-X5)		
Client base	X4 * (1 – X(RE)) / (1-X5)		
Reinsurance policy	0,5*X5+0,5*X5*√ (Re/10)		
Financial indicators			
Liquidity and solvency	X6 * (1 – X(RE)) / (1-X5)		

<sup>&</sup>lt;sup>3</sup> Criteria for size-classes are provided in the Calculation file.

<sup>&</sup>lt;sup>4</sup> The analogue of motor damage insurance for airplanes.



Structure of financial results	X7 * (1 – X(RE)) / (1-X5)
Asset quality	X8 * (1 – X(RE)) / (1-X5)

Xi - fixed weight for section i;

X (RE) - weight of section "Reinsurance" =  $0.5 \times X5 + 0.5 \times X5 \times \sqrt{(\text{Re} / 10)}$ ,

the weight of 0,5 \* X5 is distributed between the indicators with fixed weights,

and the weight of 0,5 \* X5 \*  $\sqrt{(\text{Re} / 10)}$  - is distributed between indicators with not fixed weights.

Re - reinsurers' share in contributions (for the last six months, nine months or a year according to the profit and loss account).

# 4.4 Rating scale

The final reliability rating class according to the international scale is derived from the combination of the ISR score and the Preliminary Reliability Rating score. The following table shows a summary of the possible rating classes which can come up from the different combinations between the ISR score and the Preliminary Reliability Rating score:

		ISR					
		1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6
	1	AAA	AAA / AA	AA- / A	A / BBB	BBB / BB+	BB- / B+
	1 - 0,95	AAA / AA+	AA+ / AA-	AA- / A	A- / BBB	BBB- / BB	BB- / B+
	0,95 - 0,9	AA+	AA+ / AA-	AA- / A	A- / BBB	BBB- / BB	BB- / B
	0,9 - 0,85	AA+	AA / AA-	A+ / A-	A- / BBB-	BBB- / BB	BB- / B
	0,85 - 0,8	AA+ / AA	AA / A+	A+ / A-	BBB+ / BBB-	BBB- / BB-	B+ / B
	0,8 - 0,75	AA / AA-	AA- / A	A / BBB+	BBB+/BB+	BB+ / BB-	B+ / B-
Ŋ	0,75 - 0,7	AA- / A+	AA- / A-	A / BBB	BBB / BB+	BB / B+	B / B-
ATIN	0,7 - 0,65	A+	A+ / A-	A- / BBB	BBB- / BB	BB / B+	B / B-
TY R	0,65 - 0,6	A+ / A	A / BBB+	BBB+ / BBB-	BBB- / BB	BB- / B	B / B-
PRELIMINARY RELIABILITY RATING	0,6 - 0,55	А	A / BBB+	BBB+ / BBB-	BB+ / BB-	BB- / B	B- / CCC+
ELIA	0,55 - 0,5	А	A- / BBB+	BBB / BBB-	BB+ / BB-	BB- / B	B- / CCC+
RY R	0,5 - 0,45	A / A-	A- / BBB	BBB / BB+	BB+ / BB-	B+ / B	B- / CCC+
INAI	0,45 - 0,4	A- / BBB+	A- / BBB	BBB / BB+	BB+ / B+	B+ / B-	B- / CCC+
ELIM	0,4 - 0,35	BBB+	BBB+ / BBB-	BBB- / BB	BB / B+	B / B-	CCC+ / CCC
PRI	0,35 - 0,3	BBB / BBB-	BBB / BB+	BB+ / BB-	BB- / B	B / CCC+	CCC+ / CCC
	0,3 - 0,25	BBB- / BB+	BBB- / BB-	BB / B	B+ / B-	B- / CCC	CCC+ / CCC
	0,25 - 0,2	BB / BB-	BB / B	BB- / B-	B / CCC+	CCC+ / CCC	CCC / CCC-
	0,2 - 0,15	BB- / B	B+ / B-	B / CCC+	B- / CCC	CCC / CCC-	CCC-
	0,15 - 0,1	B / CCC-	B- / CCC-	CCC+ / CCC-	CCC / CCC-	CCC-	CCC-
	0,1 - 0,05	CCC-	CCC-	CCC-	CCC-	CCC-	CCC-
	0,05 - 0	С	С	С	С	С	С



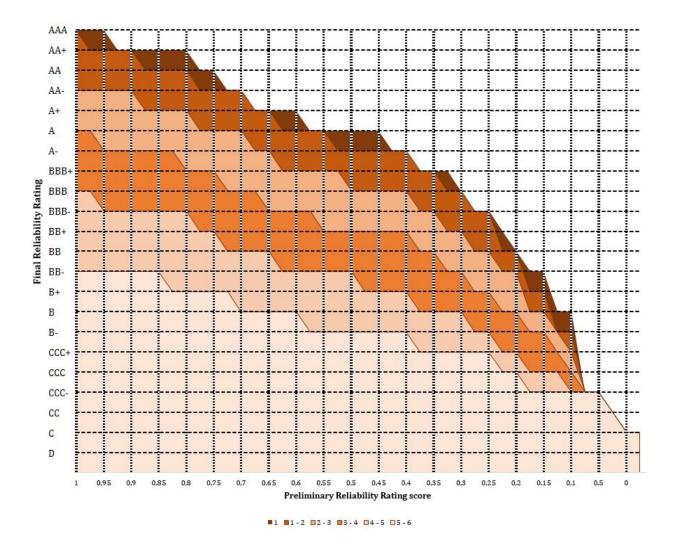
Then, the final reliability rating class of the insurance company according to the international scale depends on the score we just derived. Thus, the final rating is obtained from the following table:

"C" is assigned in case the company does not fulfil part of its insurance liabilities

"D" is assigned if the company does not fulfil all its insurance liabilities

"E" is assigned if the company is going through the liquidation procedure or company's license was revoked

In order to illustrate the distribution of the ratings per anchor and the range of possible rating classes per combination of ISR score and the Preliminary Reliability Rating score, we provide the following chart where the shaded areas represent each ISR level.



### 4.5 Rating score adjustments for stand alone reliability ratings

**4.5.1** The final rating score is obtained by analyzing the company's financial stability and shall be adjusted depending on:



- 1. The total value of negative factors (risk accumulation);
- 2. Presence of internal support factors;
- 3. Presence of internal stress factors.

The decision on each of the adjustments shall be presented for discussion on the rating committee.

**4.5.2** The adjustment for **total value of negative factors** (increased probability of risk accumulation) is based on two indicators:

- 1. The total number of indicators, which were assessed as "-1", weighted according to the importance of these indicators in the methodology;
- 2. The total number of indicators, which were assessed as negative (negative scores), weighted according to the importance of these indicators in the methodology.

Scores, which were assessed in the process of analyzing the size characteristics of the company ("Size factor", "Market position of the company"), corporate governance analysis (see "Corporate management and business-processes", excluding indicators connected with the assessment of the company's owners and the factor "Reporting"), are not included in the adjustment for the total value of negative factors.

**Risk accumulation** – is a combination of negative factors, which creates a substantial risk which is significantly higher than the sum of risks posed by each of these factors individually.

Risk accumulation may occur both within the same risk group and between different types of risks.

**A necessary but not sufficient condition** for "risk accumulation" is that the sum of "negative scores" exceeds the threshold values specified in the table below:

Rating score	Threshold values for ne	The value of deduction	
	Sum of "negative scores" Sum of "-1"		ucuuction
А	3	1,5	0,20
BBB	9	6	0,15
BB	18	13	0,15
В	24	17	0,10
CCC and below	30	20	0,10

If this condition is satisfied, the **presence of the accumulation factor shall be declared**, **the final decision about the presence of the accumulation factor shall be made by the rating committee**.

The most typical situations for presence of an accumulation factor are:

Accumulation of risks can lead to problems with the solvency margin according to the local regulatory standards. A slight deviation of the factual solvency margin from the normative plus one or more of the following factors:

- Extremely high growth rates of contributions;
- High loss ratio and negative technical result of insurance transactions;



- Negative scores for return on assets;
- Negative score for return on investment;
- Low reliability of the investment portfolio;
- High share of investments in stock-market instruments.

Accumulation of risks can lead to problems with liquidity. Negative scores for liquidity indicators (such as ratio of liquid assets to total liabilities and cash to net reserves), plus one or more of the following factors:

- Negative growth rates of insurance premiums;
- Poor quality of receivables;
- Negative scores for off-balance liabilities;
- Negative scores for the relative value of the risks accepted, negative scores for reinsurance of large risks and negative scores for the ratio of the maximum net insurance claims and benefits to equity;
- Negative scores for return on assets;
- Presence of signs of manipulations with security portfolio.

Accumulation of risks, indicating an increase in the probability of "unfair withdrawal" from the market. The simultaneous presence of two or more of the following factors:

- Frequent changes of top-management;
- Failure to comply with the regulations;
- Presence of signs of manipulations with security portfolio.

**Accumulation of risks inside one group of risks.** The presence of two or more of the following factor combinations:

- Low diversification and low reliability of the reinsurance portfolio;
- Low diversification and low reliability of the investment portfolio;
- Low diversification of the insurance portfolio and high loss ratio (negative technical result of insurance activities) for the main type of insurance;
- Negative scores for the ratio of accounts payable to total assets, for loans and credits and for off-balance sheet liabilities;
- Failure to comply with the regulations (margin / coating reserves and equity) and high number of complaints.

**4.5.3 Internal support-factors** include internal financial resources of the company and other factors.

Internal support-factors include internal financial resources of the company. Internal support-factor must be used if funds or other assets actually were received by the company, but they are not yet reflected in the financial statements because the latest available statements have been issued before the company received funds or other assets (if the



conditions for support-factor are satisfied the score shall be determined according to the algorithm definition in Sub-section 4.6).

"Other support-factor" can be assigned to the company if there are factors that are not assessed or insufficiently assessed in the rating model because of specific characteristics of the rated company or temporary influence of such factors.

If an internal support-factor is present - 0,125 points (in case of moderate support- factor), or 0,25 points (in case of strong support- factor) shall be added to the rating score.

**4.5.4 Internal stress-factors** include the risk of sudden and significant reduction in the company's solvency or the risk of license revocation, and depend on the characteristics of company's activities and management decisions, as well as other risks. The presence of one **Internal stress-factor** can reduce the score for the **stand alone reliability rating** by **0,25 points (for each strong stress-factor)** or by **0,125 points (for each moderate stress-factor)**. The following factors can be considered as **internal stress factors**:

Factor	Moderate stress-factor (0,125 points)	Strong stress-factor (0,25 points)
Specialization	Specialization in insurance of less known risks <sup>5</sup> . Conditions:	Specialization in insurance of less known risks. Conditions: 1. The share of these types of insurance in the insurance portfolio is more than 40%.
	<ul> <li>40%.</li> <li>2. The risks of these types of insurance are not reinsured (the share of reinsured contributions in the total contributions is less than 5% or net retention<sup>6</sup> contains risks exceeding 50% of equity) or risks are reinsured in companies with low reliability ratings (the rating is lower than BB- according to international scale).</li> </ul>	-
Contributions dynamics	1. <i>Sharp increase of contributions</i> : For companies from 1 <sup>st</sup> to 3 <sup>rd</sup> size	1. <i>Sharp increase of contributions</i> : For companies from 1 <sup>st</sup> to 3 <sup>rd</sup> size
	classes:	classes:

<sup>&</sup>lt;sup>5</sup> Less known risks in this Methodology mean risks for which significantly large amount of statistical data on insured events is not available. In this case the company can't assess the probability of future losses.

<sup>&</sup>lt;sup>6</sup> Net retention - in insurance, this is the insurance policies amount still in the books after subtracting cancellations and lapsed policies from new policies written (the amount of coverage a company retains for a specific risk after deducting reinsurance).



		· · · · · · · · · · · · · · · · · · ·
	AMV <sup>7</sup> +40% > contributions growth rate > AMV +25%	contributions growth rate > AMV +40%
	For companies from 4 <sup>th</sup> to 5 <sup>th</sup> size classes: AMV +70% > contributions growth rate > AMV +50%	For companies from 4 <sup>th</sup> to 5 <sup>th</sup> size classes: contributions growth rate > AMV +70%
	2. Sharp decrease of contributions: Contributions to the company decreased by 50-75% for the last six months / nine months / year. This decrease of contributions is not connected with the delay of a big contract into the next quarter.	2. Sharp decrease of contributions: Contributions to the company decreased by more than 75% for the last six months / nine months / year. This decrease of contributions is not connected with the delay of a big contract into the next quarter.
Equity value	The company's equity for the last reporting date is close to the regulatory minimum.	The company's equity for the last reporting date is below the regulatory minimum.
Net accepted risks	The maximum possible net insurance benefit / claim is in the range between 40% and 65% of equity.	The maximum possible net insurance benefit / claim exceeds 65% of equity.
	cyulty.	
Adequacy of		Ratio of <b>provisions (reserves) for</b>
Adequacy of provisions	Ratio of <b>provisions (reserves) for</b>	Ratio of <b>provisions (reserves) for</b> unearned premiums to
provisions	Ratio of provisions (reserves) for unearned premiums to	unearned premiums to
provisions (reserves) of	Ratio of provisions (reserves) for unearned premiums to contributions (for the last four	<b>unearned premiums to</b> contributions (for the last four
provisions (reserves) of unearned	Ratio of <b>provisions (reserves) for</b> <b>unearned premiums to</b> contributions (for the last four quarters) net of costs of doing	<b>unearned premiums to</b> contributions (for the last four quarters) net of costs of doing
provisions (reserves) of	Ratio of provisions (reserves) for unearned premiums to contributions (for the last four	<b>unearned premiums to</b> contributions (for the last four
provisions (reserves) of unearned	Ratio of <b>provisions (reserves) for</b> <b>unearned premiums to</b> contributions (for the last four quarters) net of costs of doing business (for the last four quarters) on the last reporting date <30% but	<b>unearned premiums to</b> contributions (for the last four quarters) net of costs of doing business (for the last four quarters)
provisions (reserves) of unearned premiums	<ul> <li>Ratio of provisions (reserves) for unearned premiums to contributions (for the last four quarters) net of costs of doing business (for the last four quarters) on the last reporting date &lt;30% but more than 20%.</li> <li>1) Financial difficulties in one or more than one main investment objects, which accounted for 20-35% of the company's</li> </ul>	<ul> <li>unearned premiums to contributions (for the last four quarters) net of costs of doing business (for the last four quarters) on the last reporting date &lt;20%.</li> <li>1) Financial difficulties in one or more than one main investment objects, which accounted for 35- 70% of the company's investments.</li> <li>(if the share of "bad" investments exceeds 70% - the company must be</li> </ul>

<sup>&</sup>lt;sup>7</sup> Average market value – according to benchmarks for the same reporting date.



	4) Big share of assets from the 4 <sup>th</sup>	4) Big share of assets from the 4 <sup>th</sup>
	quality category (see 5.3.3);	quality category (see 5.3.3);
Off-balance sheet	The ratio of the off-balance sheet	The ratio of the off-balance sheet
liabilities	liabilities to equity is in the range	liabilities to equity exceeds 65%.
	between 40 and 65%.	
Financial result	Presence of large balance sheet	Presence of large balance sheet
	losses during the last two quarters.	losses during the last two quarters.
	Total losses for two quarters are in	Total losses for two quarters exceed
	the range between 10% and 20% of	20% of equity at the beginning of the
	equity at the beginning of the first	first quarter.
	quarter.	There is a high probability of losses
	There is a high probability of losses	during following two quarters.
	during following two quarters.	It is necessary to take into account
	It is necessary to take into account	that losses may not be reflected in
	that losses may not be reflected in	the financial statements because of
	the financial statements because of	financial support from company's
	financial support from company's	owners.
	owners.	
Timely payment	1) Sharp increase of loss reserves	1) Sharp increase of loss reserves
of obligations	(the growth rate of loss reserves	(the growth rate of loss reserves
	exceeds growth rate of	exceeds growth rate of
	contributions by 25-50 percentage	contributions by more than 50
	points) is not explained by change	percentage points) is not explained
	in the accounting policies or by big	by change in the accounting policies
	insured event.	or by big insured event.
	2) Sharp increase of salary	2) Sharp increase of salary
	expenses, not related to seasonal	expenses, not related to seasonal
	variations or changes in the	variations or changes in the
	accounting policies, the debt is	accounting policies, the debt
	between 1,5% and 2,5% of the total	exceeds 2,5% of the total balance.
	balance.	
		3) The ratio of overdue payments
	3) The ratio of overdue payments	on accounts payable/overdue loans
	on accounts payable/overdue	to total assets exceeds 5%.
	loans to total assets is in the range	
	between 1% and 5%.	
Corporate	Moderate influence	Strong influence
governance and		
quality of		
reporting		
(all criteria are		
provided in Section		
5)		



Reputation of the	Moderate influence	Strong influence
company's		Strong mildenee
management		
(all criteria are		
provided in Section		
5)		
Regulatory risks	Moderate influence (the algorithm	Strong influence (the algorithm of
("scheme"	of Penalization for "schemes" is	Penalization for "schemes" is
character of	provided in Sub-section 4.5.5)	provided in Sub-section 4.5.5)
company's		
activities,		
violations of		
normative values).		
Other stress-	Moderate influence	Strong influence
factors, reflecting		_
risks that are not		
assessed or		
insufficiently		
assessed in the		
rating model		
because of		
specific		
characteristics of		
the rated		
company or risks		
having temporary		
influence		

### <u>Notes:</u>

### Stress factor "Contributions dynamics":

The stress-factor should not be assigned if the drop of contributions was due to a reduction of "schemes" or due to a reduction of contributions from contracts / agreements concluded with the help of "administrative resources" and these contracts / agreements included high commissions.

### Stress factor "Asset quality":

Signs of financial difficulties:

- The downgrade of the company's rating to a level of CC or to any level lower than the current one by more than one notch;
- Technical default (the decision to recognize the technical default as sign of financial difficulties shall be made after analyzing additional information about the company);
- Non-technical default;
- For companies, whose securities are not traded on an exchange: presence of significant signs of default.

Signs of possible elimination of financial difficulties:





- For the bank: the bank is going through the official financial recovery procedure;
- For all: the company was bought by a strategic investor;
- For all: the government supported the company by giving funds.

# Stress factor "Off-balance sheet liabilities":

Importance of the stress-factor may be lowered, or the stress-factor may be removed after the analysis of the following parameters:

- Diversification of obligations (if the obligations are from several contracts, the risk is smaller);
- Assessment of probability of fulfilling the liabilities.

# Stress factor "Financial result":

The following is a limitation for this stress-factor:

If the losses are realized, the solvency margin is assessed with a score of "0,5" or higher - the strong stress factor must be changed to the weak one.

# Stress factor "Timely payment of obligations":

If the company has overdue payments on accounts payable/ overdue loans, the expert must send a request to the company asking for the following information:

- The main parameters of the debt (lenders, the essence of the agreement under which the overdue debt exists, the expected time of repayment);
- The reasons for non-payment of the debt;
- Whether the debt was redeemed at the time of the request. If YES, the expert shall request documents confirming the debt repayment. If NO, the expert shall ask about the reaction of the lender and the repayment plans / restructuring.

Stress-factor "Overdue payments on accounts payable/ overdue loans" can be adjusted by the expert from strong to moderate if:

- The delay of payment was a one-time event and technical<sup>8</sup>;
- The delay of payment was made in relation to affiliated companies.

If the problem has been removed at the time of the analysis, the stress-factor shall not be applied.

If the ratio of overdue debt to assets is more than 20%, the problem does not have a technical nature and it has not been resolved at the time of analysis, a rating of CC in accordance with the international scale or below shall be assigned to the company.

**4.5.5** "Schemes" - operations of "false insurance", the main aim of these operations is not protection against risks, but:

- withdrawal of funds from corporate clients ("risk-free" property and liability insurance, as well as part of the "insurance" of financial risks);
- maintenance of "Kickback (bribery)";
- tax avoidance.

The share of "schemes" is defined as the proportion of premiums ceded to reinsurance companies with a bad reputation.

<sup>&</sup>lt;sup>8</sup> Here it means that the delay of payment was not connected with the financial problems of insurance company.



# "Penalty for the schemes" is deducted from the final rating score (see the algorithm below):

X – "share of schemes" in the insurance company's portfolio (as a percentage).

If  $X \le 20\%$ , the "presence of schemes" shall be treated as a continuous risk factor (the risk of tax claims) and the formula 0,0125\*X shall be used.

If X> 20%, the "presence of schemes" shall be treated as a discrete risk factor (risk of license withdraw).

• If 40%> X> 20%, the company has a strong stress factor (0,25 must be deducted from the final rating score).

• If 60%> X> 40%, 0,5 must be deducted from the final rating score.

• If X> 60%, the company's rating level cannot be higher than "CCC+".

All "schemes" can be divided into two main groups according to their "economic nature":

- 1. **Funds withdrawal operations** (risk-free property and liability insurance, as well as part of the "insurance" of financial risks). Signs:
  - value of claims and benefits paid is close to 0% with a high share of the costs of doing business;
  - high share of premiums ceded to reinsurance companies with bad reputation;
  - extremely low efficiency of reinsurance operations.
- 2. **Public budget "execution operations"** (part of the agricultural "insurance" including government subsidies). Signs: a stable level of claims and benefits paid above 50%.

# 4.6 Rating score adjustments for reliability ratings<sup>9</sup>

**4.6.1** The final rating score obtained by analyzing the **internal company's reliability**, shall be adjusted taking into account:

- 1. Presence of external support factors;
- 2. Presence of external stress factors.

Decision for each adjustment shall be made at the rating committee.

**4.6.2** External support-factors take into account financial and administrative resources which are external to the company, and which can be used in case of deteriorating financial condition. External support-factor must be added to the rating score, as 0,125 points (in case of moderate support- factor) or as 0,25 points (in case of strong support- factor).

# Support factor for government

There are three signs of possible support by the government:

<sup>&</sup>lt;sup>9</sup> Taking into account external support- and stress-factors.



### **1.** Strategic importance of the company<sup>10</sup>.

Example: The company has a high market share in the segment of "Civil liability insurance of motor vehicle owners";

### 2. Administrative support by the government (if the government is the owner).

Example: the government is interested in the development of its company, and provides exclusive access to a high-quality customer base;

# 3. The company's owners/ managers have a friendly relationship (informal relationships) with top officials (representatives of authorities).

Example: The Agency has information that the company is owned by top officials (their relatives, friends, etc.).

The following characteristics can show one or several signs of possible support by the government:

- Loyalty of the regulator to the company;
- Preferences from the government in obtaining a high-quality customer base.

### Support-factor (SP) for owners

This support-factor is used to assess the probability of the support from the insurance company's owners. This support-factor can be moderate or strong.

When assessing the support factor for the support from the owners, the following criteria are taken into account:

1. "Nominal" rating class<sup>11</sup> of the entity, related to the rated insurance company, if this entity can support it. Support-factor can be assigned, only if the "nominal" rating class of this entity is higher, than the stand-alone rating of the insurance company. If owners of the insurance company are individuals, documented volume of assets outside the company, shall be taken into account;

2. Importance of the insurance company as an asset for the entity/ individual person, that can provide a support for the insurance company. To assess this importance, the Agency takes into account the share of the insurance company's equity, owned by this entity/ individual person; presence of the comfort letters from the entity/ individual person; presence of the sureties on the company's liabilities; interrelationships of the businesses and other factors;

<sup>&</sup>lt;sup>10</sup> The company is extremely important for the insurance market as a whole or its individual segments in particular. For example, the company is the key provider of the government insurance program.

<sup>&</sup>lt;sup>11</sup> Nominal rating class of the issuer corresponds to the rating class in accordance with the international scale of the Agency and shall be determined on the basis of information about the creditworthiness of the entity, available for the Agency. This information can include:

<sup>•</sup> Credit ratings assigned to the counterparty;

<sup>•</sup> Public financial statements of the counterparty;

<sup>•</sup> Non-public financial statements of the counterparty (if this information is available for the Agency);

<sup>•</sup> Other information from the public sources, showing the trends of the counterparty's financial position, that can have a significant influence on the default probability.



3. Potential needs of the additional funding for the rated insurance company and the presence of such funds in the supporting entity/ individual person, that can provide a support for the insurance company.

The Agency distinguished two following situations:

- At the moment the insurance company needs an additional financial support. In this case, the following condition shall be satisfied in order to assign the support-factor: supporting entity/ individual person has enough liquid assets, that can be immediately transferred to the balance sheet of the insurance company to cover its needs, and if supporting entity/ individual can provide such support in the future;
- At the moment the insurance company does not need an additional financial support. The Agency assesses the probability of such support provision in the future, if the negative scenario for the insurance company materializes. In this case, the current presence of the assets of the supporting entity/ individual person shall be assessed, as well as the ability to generate such assets.

The strong-support factor can be assigned if the rated entity is critically important for the supporting counterparty and if this counterparty has a credit rating not lower than BBB-according to the international scale.

When assigning the support-factor, the following shall be taken into account: the credit rating of the rated entity cannot be higher than the credit rating / "nominal" rating class of the supporting entity.

### Other support-factor

Other support-factor (moderate or strong) shall be assigned for factors that are not assessed or insufficiently assessed in the rating model because of specific characteristics of the rated company or for factors having temporary influence.

**4.6.3** External stress-factors include the risk of sudden and significant reduction in the company's solvency or the risk of license revocation, and slightly depend on the characteristics of company's activity and management decisions, but mostly depends on external factors.

Factor	Moderate stress-factor (0,125 points)	Strong stress-factor (0,25 points)
Owners	0	Bankruptcy of one of the company's owners (share in the ownership structure - more than 25%)
Government relations risks <sup>12</sup>	e	Presence of direct signs of conflict between the insurance company

The following factors can be considered as **external stress-factors**:

<sup>&</sup>lt;sup>12</sup> Risks that arise from the firm's relationships with the government. This includes local and national government bodies and all branches of government, including politicians, bureaucrats and judges.



	negative actions of authorities aimed at the comp	public pany	and the authorities (e.g., limitation of license or significant tax claims)
Other stress-	Moderate influence	Juliy	Strong influence
factors, for risks			
that are not			
assessed or			
insufficiently			
assessed in the			
rating model			
because of specific			
characteristics of			
the rated company			
or for risks having			
temporary			
influence			
Other factors,	Moderate influence		Strong influence
including sudden			
change in market			
conditions and			
changes in			
regulatory			
requirements			

The expert can only assign one additional ("other") internal and one additional external stressor support-factor.

# 4.7 Additional restrictions

The rating assessment of the insurance company may also depend on its "size class". Size classes of the insurance companies are updated every year. Three main parameters are used to determine size classes: the size of insurance contributions, the amount of equity and the amount of insurance reserves.

Expert shall use the amount of equity and reserves as of the last date of available financial statements in order to determine the size class.

Justifications for the "size class" restrictions shall be separately discussed on the rating committee.

Examples of size class restrictions justification:

- 1. The company is not included in the financial group and it is the only major asset of its owners;
- 2. The company specializes in the insurance of large risks;
- 3. Extremely low scale of performance.



# 4.8 Special order of assigning ratings "CC", "C", "D" and "E"

**4.8.1. Ratings "CC"** are assigned in the case of presence of at least one "sign" of high probability of bankruptcy / license withdraw, namely:

- The company's equity is lower than zero for the last reporting date;
- The main investment object, which accounts for over 70% of the insurance company's investment, has serious financial difficulties;
- The company has assumed the risks, for which the maximum payout/ claim for a single event exceeds the value of equity and reserves, and the company did not reinsure these risks sufficiently or reinsurance was assessed as unreliable;
- The presence of clear "signs" of funds withdrawal from the company (for example: a sharp increase (by more than 20 percentage points) of share of bills from non-rated companies to 80% of the investment);

Level	Condition		
	One of the features of high probability of bankruptcy / license withdrawal, listed above, exists		
	AND		
CC	The insurance company provides timely fulfillment of all current financial obligations		
	OR		
	The rating score of the insurance company is less than "-0,45"		
	Two of the features of high probability of bankruptcy / license withdrawal, listed above, exist		
С	AND		
	The insurance company provides timely fulfillment of all current financial obligations		

**4.8.2 Rating "C"** is assigned to the company, if it does not meet its current financial obligations on time to the extent that it should lead to the withdrawal or suspension of license.

**4.8.3 Ratings "D" and "E"** are assigned to the company, if the current situation in the company complies with the definition of these ratings (see page 6-7).

Rating D is assigned to the company, if the company does not meet its obligations to the policyholders, beneficiaries, partners, creditors and employees.

Rating E is assigned to the company, if bankruptcy or license withdrawal procedures have started.



# 5. System of indicators

# 5.1 External factors of stability and corporate management

# 5.1.1 Size factor and market position

Factor	Weight
Size factor	3,5
Equity dynamics	0,5
Dynamics of insurance premiums	0,5
Market position of the company	5
Captivity	1
Compliance with regulatory prescriptions	2
Reputation	2

### Size factor

### Sources of information: Financial statements.

The size of an insurance company determines its capabilities to diversify both insurance risks and financial risks. Consequently, high size indicators are considered as a positive factor. The size factor of the company is determined based on three indicators: equity, reserves and insurance contributions. Criteria for size-classes are changed every year by the results of the insurance market research.

Score	Factor
1	1 <sup>st</sup> size class
0,5	2 <sup>nd</sup> size class
0	3 <sup>rd</sup> size class
-0,5	4 <sup>th</sup> and 5 <sup>th</sup> size class
-1	The equity of the insurance company is less than minimum required level,
	the equity of reinsurance company (companies with share of inwards
	reinsurance in total activity exceeding 50%) is less than the minimum
	required level for the correspondent type of the companies.

# **Equity dynamics**

### Sources of information: Balance sheet.

Consistently increasing levels of equity above the market average positively affect the rating. The approach taken to analyze this factor depends on the adjusted solvency margin of the insurance company. If the adjusted solvency margin is considered to be at an acceptable level, we use loser benchmarks to analyze the dynamics. In addition, the Agency also takes into account if the analyzed entity is in need of additional capital injection.

If adjusted solvency margin ratio is assessed as 0,5 or 1 If adjusted solvency margin ratio is assessed as 0, -0,5 or 1



1	Indicator > B	Indicator > B + 5%
0,5	<ul> <li>B &gt; Indicator &gt; 0</li> <li>OR</li> <li>0 &gt; Indicator &gt; -5%</li> <li>AND</li> <li>negative growth rates of equity</li> <li>related to the payment of dividends</li> </ul>	B + 5%> Indicator > MIN (B; inflation)
0	0 > Indicator > -5% AND Condition above is not met	MIN (B; inflation) > Indicator > 3% AND Growth rate of equity corresponds to the growth rate of premiums (i.e., contributions do not grow at a faster pace)
-0,5	All other cases	All other cases
-1	Decrease of the equity level in the medium term may reduce the assessment of capital adequacy ratio	Indicator < 0

*Indicator*: *dynamic of the rated company's equity for the last reporting period.* 

**B**: the average market value of the growth rate of equity of insurance companies for the year (since the last reporting date).

# Dynamics of insurance premiums

Sources of information: Income statement.

Consistent growth in gross written premiums has a positive impact on the rating since it means that the company is constantly and consistently increasing its market participation. However, we analyze this indicator differently in regard to the maturity and size of the company.

Score	Factor
	For companies from 1-3 size classes:
	B +20%> Indicator > B +5%
1	
	For companies from 4-5 size classes:
	B +40%> Indicator > B +5%
0,5	B +5%> Indicator > B
0	B > Indicator > B-5%
	B-5% > Indicator > min (0; B-10%)
	OR
	For companies from 1-3 size classes:
-0,5	Indicator > $B + 20\%$
	For companies from 4-5 size classes:
	Indicator > $B + 40\%$
	(extremely rapid growth of insurance premiums is also a risk factor)
-1	Indicator < min (0;B-10%)



*Indicator*: dynamics of the rated company's insurance premiums for the last analyzed period (six months, nine months, or year).

**B**: the average market value of growth rate of premiums of insurance companies for the last analyzed period.

# Market position of the company

Sources of information: Local financial authorities, financial statements and other reputable sources of information.

The market position of the company is one of the indicators which carry an important weight in the methodology. While assessing this factor we consider that a high amount of gross written premiums, as compared to the market average, in combination with a high share of the total market's premiums is positive for the reliability rating. At the same time, a specialized company is positively assessed if they are important market players for type of insurance they specialize on. Furthermore, a high amount of assets benefits the reliability rating. The Agency assesses all of these factors at the regional and global level.

Score	Factor
	The company is in the top percentile of GWP share globally and regionally. The company is in the top percentile of assets share globally and regionally.
1	The market concentration in the country is low or moderate. The company has an important market share in at least one of the countries where it operates or in at least one of the insurance sectors where it operates.
-1	The company is in the lowest percentile of GWP share globally and regionally. The company is in the lowest percentile of assets share globally and regionally.
	The market concentration in the country is high. The company has a negligible market share in all of the countries where it operates or in all of the insurance sectors where it operates.

We use a continuous linear estimation:

# Captivity

Sources of information: Questionnaire and rating interview.

The company's low dependence on any third parties in terms of sales and market position positively affects the score. A high proportion of premiums from affiliated parties or through affiliated parties, can have a negative impact on the insurance company's rating level.

There are two types of captive businesses:

- Contributions received from affiliated companies;
- Contributions received through affiliated companies (i.e. affiliated companies act as insurance agents).



Score	Factor
1	The company's business is not dependent on its owners. The company
T	belongs to the "retail companies" type.
0,5	The share of owners and affiliates accounted for less than 30% of the business
	for the last reporting period.
	And the condition to score "1" is not satisfied.
0	All other cases.

The score for the factor Captivity shall be increased by 0,5 if the captive company has competitive knowledge and skills in specific insurance risks in a segment where affiliated companies are operating.

# **Compliance with regulation**

Sources of information: Questionnaire and financial statements.

The rating is negatively affected if there is an evidence that the rated company has violated regulatory legislation.

Score	Factor		
	The company has had less than 10 regulatory warnings <sup>13</sup> which cannot be		
1	categorized as "serious" <sup>14</sup> over the past two years.		
	There are no administrative risks in the company.		
	The company has had less than 20 regulatory warnings which cannot be		
0,5	categorized as "serious" over the past two years.		
,	AND Condition "1" is not satisfied.		
0	The company has had less than 40 regulatory warnings which cannot be		
	categorized as "serious" over the past two years.		
	AND Conditions "1" and "0,5" are not satisfied.		
	The company has had more than 40 regulatory warnings which cannot be		
	categorized as "serious" over the past two years.		
0.5	OR		
-0,5	The company has not complied with the normative ratios from supervisory		
	bodies only once during the analyzed period (normative ratios for reserves		
	coverage, equity, normative ratios for solvency margin).		
-1	The company did not comply with the normative ratios from supervisory		
	bodies twice or more during the analyzed period (normative ratios for		
	reserves coverage, equity, normative ratios for solvency margin).		

### Reputation

Sources of information: Media

<sup>&</sup>lt;sup>13</sup> We define regulatory warnings as a notification from the regulator stating that the company must change one or more financial indicators (e.g. equity) in order to comply with the regulation in place.

<sup>&</sup>lt;sup>14</sup> Serious - relating to the non-fulfillment of the requirements for reserves coverage, equity coverage and margin.



An impeccable credit history increases the likelihood of refinancing current obligations at reasonable rates and, thus, has a positive effect on the rating. Moreover, brand recognition and positive perception by stakeholders shown by client retention, contribute positively to the reliability assessment. On the other hand, reputational scandals have a negative impact on the rating of the company as they can reduce the level of contributions and hinder the formation of a high quality customer base.

This factor must be assessed as "1" by default except for the following cases:

Condition	Amount of the deduction
The company provides financial services to a particular	-0,5
group of companies or the whole industry. The company	
does not conduct open market operations.	
The company's activity on the market is associated with	-1
"schemes".	
The company's reputation was negatively affected by being	-0,5
involved in reputation scandals. This could be found by	
influential non-governmental organizations, regulators or	
the media (during the past 2 years).	
The company got into the sphere of attention of state bodies.	-1
The company was declared as bankrupt by the court of first	-1,5
instance (during the past 2 years).	
At least one key manager of the company has bad	-0,5 OR -1 (depending on the
reputation, mentioned in connection with a scandal /	importance and limitations of
violations of the law and / or ethics of the professional	scandal)
community.	

If the score including penalties is equal to "-1,5", weak stress-factor shall be assigned to the company (the score for the factor becomes equal to "-1" in the calculation file). If the score including penalties is equal to "-2" and below, strong stress-factor shall be assigned to the company (the score for the factor becomes equal to "-1" in the calculation file).

#### 5.1.2 Corporate management and business-processes

Weights:

Factor	Weight
Owners' reputation	2
Shareholding structure	1
Changes of the shareholding structure for the year	0,5
Strategy of the company	1
Level of transparency	1
The auditor for financial reports	2
Human resources and management	1
Reporting	1,5
Risk management structure	2
Insurance risk management	0,5
Credit risk management	0,5
Market risk management	0,5



Liquidity risk management	0,5
Operational risk management	0,5

### **Owners' reputation**

Sources of information: Questionnaire, rating interview, media and other reputable open sources of information.

Reputation of the company's owners has a strong effect on the company's market position as well as its efficiency in communication with customers and counterparties. Strong reputation and creditability of the owners ensures that the insurance company can rely on their financial support in case of financial distress. While poor reputation of the company's owners harms the market position of the entity, and therefore restrains the credit assessment.

Score	Factor
1	More than 75% of the company's share capital is owned by the federal government, regional government and / or companies with a rating equivalent to at least "A-" in international scale.
1	OR
	The owners of the company are individuals with excellent business reputation.
0,5	More than 75% of the company's share capital is owned by regional government and / or companies with a rating equivalent to at least "BB" in international scale. OR these entities have a good reputation according to the expert's opinion (condition for "1" is not satisfied).
	OR
	The owners of the company are individuals with good business reputation.
0	More than 75% of the company's share capital is owned by regional government and / or companies with a rating equivalent to at least "B+" in international scale. OR these entities have a good reputation according to the expert's opinion (condition for "1" and "0,5" is not satisfied).
0	OR
	More than 75% of the company's share capital is owned by the management of the company.
-0,5	All other cases.
	Reputation of the owners - individuals is bad (criminal or administrative proceedings/ cases were started/ opened against them).
-1	OR
	Legal entities (owners of the company) with a rating equivalent to "B" or lower according to the international scale. OR do not have any credit rating.



### Shareholding structure

Sources of information: Questionnaire, rating interview, media and other reputable open sources of information.

The purpose of this subsection is to estimate the probability of conflicts between shareholders which can lead to a deterioration of the reliability of the insurance company, as well as to identify indirect signs of the owners' interest in supporting the entity. The ultimate shareholding structure, including final beneficiaries, shall be analyzed. A stable and transparent ownership structure, absence of companies registered in "tax havens" and (or) in countries with relaxed information disclosure requirements in the chain of ownership and a small number of connected companies until the ultimate controlling shareholder are positively evaluated.

Score	Factor
1	More than 50% of the shares are owned by a single owner – individual person
1	or legal entity.
0,5	More than 50% of the shares are owned by a group of affiliated persons and /
	or companies.
	More than 25% of the shares are owned by a single owner - an individual or
0	legal entity / or group of affiliated companies (conditions "0,5" and "1" are not
	satisfied).
-0,5	The ownership structure is diluted, but corporate conflicts were not
-0,5	identified.
	Corporate conflict exists between the owners of the company.
-1	OR
	The company did not disclose its owners (the ultimate ownership structure).

### Changes of the shareholding structure for the year

Sources of information: Questionnaire, rating interview, media and other reputable open sources of information.

The purpose of this subsection is to assess the stability of the company's shareholding structure. Frequent changes in the shareholding structure of the company lead to the deterioration of the corporate governance and therefore negatively affect the reliability rating. Stable shareholding structure supports the market reputation of the company as well as quality of the business-processes in the company.

Score	Factor
1	The ownership structure has not changed or minor changes have occurred.
	A score of "1" shall be assigned in case of changes in the nominal composition
	of the owners, when it is known that the final beneficiary of the company has
	not changed.
0	The main owner of the company was changed.
	AND the future strategy of the company does not include the fundamental
	changes in its activity.
-1	The owners of the company were changed.



AND the future strategy of the company is not clear. Additionally, there is a risk
of losing a large part of the business.

### Strategy of the company

Sources of information: Questionnaire and rating interview.

If the activity of the company coincides with a pre-determined strategy and it is subject to strategic objectives (mid- and long-term), the entity will be assessed positively. The lack of relevant policy documents does not allow the Agency the possibility of the company to achieve their goals and their impact on the competitiveness of the company. Moreover, the prospects for its development in the mid- and long-term perspectives cannot be analysed. The Agency also seeks to assess understanding of the management development strategy, which is important for predicting the financial factors affecting the reliability of the company. Therefore, an absence of the strategy negatively affects the rating.

Fulfillment of the criteria in full is graded as "1", partial fulfillment is scored as "0" and non-fulfillment is graded as "-1".

Check-list for the strategy:

Strategy	Weight
The strategy exists	
The strategy is appropriate for the current economic situation (at macro-level) (for example: it takes into account a potential financial instability)	0,2
The strategy includes goals and specific measures to achieve them	0,3
The strategy includes benchmarks (not only the growth of premiums and market share, but also reference points on profitability / loss ratio, quality of service)	0,3
Realistic short-term plans (without assuming excessive growth)	0,2
There is no strategy	
There is no document where the strategy is registered, but the management of the company "understands" future plans (assessment is based on the results of the rating interview, maximum score is "-0,5")	

The assessment can be improved after the rating interview even if the strategy is not in an official written form. The maximum possible adjustment is "0,5".

### Level of transparency

Sources of information: Company's web-site and list of necessary documents required by the Agency.

An insurance company will be positively assessed for transparency if it is able to provide all required information and has answered all required questions, as well as if the company publishes quarterly reports on its website and discloses information about ultimate owners and management. The insurance company's reports (with notes) in accordance with the IFRS published on the official website have a positive influence on the final rating assessment.

Score	Factor
1	Conditions:



sed;
,
lated every
's web-site)
d.
cy.
cy.
cy.
d.
the Agency.
ns specified
-
ation to the

### The auditor for financial reports

Sources of information: Financial statements and annual reports.

The assessment of the financial statements' auditor reputation is important due to the fact that a bad auditor reputation may limit the willingness of current of potential stakeholders to be related with the insurer since it would be extremely complicated to make a reliable financial assessment. Thus, a non-recognized audit company or a company with bad reputation, affects the rating score of the insurer negatively.

Score	Factor
1	"Big four" (and "daughter" companies of Deloitte, Ernst & Young, KPMG, PwC)
	The audit company is in the TOP-30 of the world
0,5	OR
	The reputation of this audit company is assessed as high by the expert
0	The audit company is in the TOP-50 of the world
-0,5	All other cases
-1	The audit company is assessed by the expert as having bad reputation

#### Human resources and management

Sources of information: Questionnaire and media.



The instability of the personnel and the management of the company has a negative effect on the company's reliability. High employee turnover ratios may indicate the lack of consistency in the company's model or inefficiency of the company to retain employees.

The score for this factor by default shall be equal to "1", but it may be reduced under the following conditions:

Condition	Amount of deduction
Top management of the company has changed twice	-1
or more times over the last year.	
The ratio of the number of dismissed employees	-1
during the year to the average number of employees	
during the year was > 0,4.	

If the company recently went through a change of owners or business model, and the consequences of this change can be assessed as positive, the "penalty" for rapid changing of staff shall not be included into the analysis.

If the factor "Human resources and management" is assessed with a score of "-1", AND there are different negative reports / news about the company's management in the media, the expert can include a stress-factor for corporate governance.

#### Reporting

Sources of information: Annual reports, financial statements, audit reports and media.

This factor includes the assessment of quality of company's reports and financial statements. A good quality of reporting and the preparation of accurate financial statements provides confidence to the stakeholders of the company.

The score for this factor by default shall be equal to "1", but it may be reduced under the following conditions:

Condition	Amount of deduction
Errors and inaccuracies were found in the	From -1 to -2,5 (depending on the
company's reports / financial statements.	significance of mistakes)
The auditor provided a negative opinion in	
the audit report, OR the auditor refused	-2,5
from expressing an opinion.	
The audit report includes significant	From -1 to -2,5 (depending on the
qualified accounts.	significance of the qualified accounts)

"Penalties" for corporate governance:

If the score including "penalties" is equal to "-1,5", a weak stress-factor shall be assigned to the company (the score for the factor shall become equal to "-1" in the calculation file). If the score including penalties is equal to "-2" or less, a strong stress-factor shall be assigned to the company (the score for the factor shall become equal to "-1" in the calculation file).

<u>Significant mistakes</u> in the company's reports / financial statements include misstatements leading to deliberate attempts to increase the reliability assessment of the company (for



example: reflection of bills from other organizations as cash on the account, changing the information about reinsurers with a bad reputation, etc.). The amount of the deduction is also affected by the frequency of detecting the mistakes. If the mistake does not apply to important indicators and has a one-time "technical" nature, the deduction shall not exceed one point.

<u>Significant qualified accounts</u> in the audit report include, for example, problems with "respecting the principle of business continuity".

#### **Risk management structure**

Sources of information: Questionnaire, internal regulations on risk management and rating interview.

The risk management structure is assessed as positive if the system complies with modern quality standards and it can demonstrate its ability to ensure the sustainable development of the insurance company by determining the degree of protection against unforeseen external shocks. Activities from an insurer face a number of risks, such as insurance, operational, market, credit and liquidity risks. Thus, the assessment of the risk management structure and its procedures is a key factor in its solvency. An adequate risk management practice shall limit the level of risks taken by the company to reduce their negative impact on the insurer's activity.

Fulfillment of the criteria in full is graded as "1", partial fulfillment is scored as "0" and non-fulfillment is graded as "-1".

Check-list for the risk management:

Risk management in the company	Weight
The company has risk management collegial bodies	0,1
Meetings of collegial bodies are held not less than once a month	0,1
The company has a procedure for organizing emergency meetings of the collegial bodies	0,1
Decisions of collegial bodies are fixed every time	0,1
There is a certain control over the execution of the collegial bodies decisions in the company	0,2
The company has a department / division responsible for the risk management	0,1
The department / division responsible for the risk management is not connected with departments which generate risks; risk management department / division directly subordinated to the company's management	0,2
The number of employees in the risk management department corresponds to the volume of company's operations (at least one employee for companies from 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> size classes, at least two employees for companies from the 2 <sup>nd</sup> size class, at least three employees for companies from the 1 <sup>st</sup> size class)	0,1
Total	

#### Insurance risk management

The company has a Regulation for Insurance risk management

Weight



Losses for different types of insurance are monitored	0,15
The risk accumulation is taken into account	0,1
Catastrophic risks are estimated by the company	0,1
The methodology for insurance risks is updated at least once every two years	0,1
The regulation describes the persons responsible for the risk management, and penalties for non-performing the regulation	0,55
The company has no Regulation for Insurance risk management	
The company does not have any documented regulations for Insurance risk management, but this process is carried out by the company (the expert's assessment is based on the analysis of the questionnaire and rating interview) (maximum score -0,5)	
Total	

Credit risk management	Weight
The company has a Regulation for Credit risk management	
Credit risks are assessed for investments, reinsurance and when dealing with insurance intermediaries	0,15
Reliability ratings are used	0,15
The methodology for credit risks management is updated at least once every two years	0,15
The regulation describes the persons responsible for risk management, and penalties for not complying with the regulation	0,55
The company has no Regulation for Credit risk management	
The company does not have any documented regulations for Credit risk management, but this process is carried out by the company (the expert's assessment is based on the analysis of the questionnaire and rating Interview) (maximum score -0,5)	
Total	

Market risk management	Weight
The maximum share of investments in the stock exchange instruments for a period	
The company has a Regulation for Market risk management	
VAR-analysis is conducted	0,15
The "system of limits" is used	0,15
The methodology for market risks is updated at least once every two years	0,15
The regulation describes the persons responsible for risk management, and penalties for non-performing the regulation	0,55
The company has no Regulation for Market risk management	
The company does not have any documented regulations for Market risk	
management, but this process is carried out by the company (the expert's assessment is based on the analysis of the questionnaire and rating Interview)	
(maximum score -0,5)	
Total	



Liquidity risk management	Weight
The company has a Regulation for Liquidity risk management	
Liquidity coefficients are calculated	0,15
Planned liquidity needs are calculated	0,15
The methodology for Liquidity risks is updated at least once every two years	0,15
The regulation described the persons responsible for risk management, and	0,55
alties for non-performing the regulation 0,5	
The company has no Regulation for Liquidity risk management	
The company does not have any documented regulations for Liquidity risk	
management, but this process is carried out by the company (the expert's	
assessment is based on the analysis of the questionnaire and rating Interview)	
(maximum score -0,5)	
Total	

Operational risk management	Weight
The company has a Regulation for Operational risk management	
There is a list of possible operational risks in the company	0,15
There is a database of operational losses in the company	0,15
The methodology for operational risks is updated at least once every two years	0,15
The regulation describes the persons responsible for risk management, and penalties for non-performing the regulation	0,55
The company has no Regulation for Operational risk management	
The company does not have any documented regulations for Operational risk management, but this process is carried out by the company (the expert's assessment is based on the analysis of the Questionnaire and rating interview) (maximum score -0,5)	
Total	

If the company does not have any stock market investments, the weight of this indicator shall be equal to zero.

The assessment can be improved depending on the result of the rating interview, even if the company does not have Regulations. The maximum adjustment is equal to "0,5".

The assessment can be reduced based on failures in the risk management (losses as a result of risks) / mismatch between regulations and reality. The maximum adjustment is equal to "1".

#### **5.2 Insurance business**

### **5.2.1 Insurance portfolio** Weights.

Factor	Weight
Geographical diversification of the insurance portfolio	1,5
Diversification of the insurance portfolio by types of insurance	2
Stability of the insurance portfolio	1
Relative value of the risks accepted	1,5



Loss ratio divided by the insurance activity types	
Technical result divided by the types of insurance activities	

#### Geographical diversification of the insurance portfolio

#### Sources of information: Questionnaire

To assess this factor, the Agency estimates the concentration of the insurance operations in the same geographical region/ country. The factor is assessed negatively if insurance risks are accumulated within a limited area due to the fact that this can lead to large losses upon the occurrence of an insured event.

The share of contributions attributed to customers from the country (in total contributions of the company) shall be assessed for each country where the company operates.

Score	Description
1	<i>HH index</i> < 0,35
0,5	0,35 < HH index < 0,45
0	0,45 < HH index < 0,55
-0,5	0,55 < HH index < 0,75
-1	0,75 < HH index

The sum of squares of these quantities is assessed as an indicator (HH index).

If the company operates only in one country but the regions/provinces where it operates are geographically diverse from each other and, according to the expert's assessment, the systemic risk exposures are mitigated by this diversification, the score shall be 0.

Factor's weight is equal to 0 for reinsurance companies.

#### Diversification of the insurance portfolio by types of insurance

#### Sources of information: Questionnaire

An insurer's balanced portfolio structure, evaluated by the shares of insurance in total insurance contributions of the company, is positively assessed as it is less susceptible to possible adverse trends in selected segments.

Score	Description
1	The Herfindahl-Hirschman index for the company $\leq 0,15$
	AND
	The share of contributions from the main type of insurance does not exceed
	25% of total contributions
0,5	The Herfindahl-Hirschman index for the company ≤ 0,225
	AND
	The share of contributions from the main type of insurance does not exceed
	35% of total contributions
0	The Herfindahl-Hirschman index for the company $\leq 0,35$
	AND



	The share of contributions from the main type of insurance does not exceed 50% of total contributions
-0,5	All other cases
-1	The share of contributions from the main type of insurance exceeds 70% of
	total contributions

If the largest type of insurance for the company is the insurance of legal entities from fire and other risks, the assessment of the insurance portfolio diversification can be increased. The maximum adjustment is equal to 1.

#### Stability of the insurance portfolio

#### Sources of information: Questionnaire

A negative assessment includes changes in the structure of contributions given the fact that these bear operational risks and can lead to distortions in the loss of individual lines of business as well as loss of market niches. In evaluating this factor the Agency includes an analysis of the reasons that caused the change.

The maximum value of the oscillation in the proportions of various insurance types according to the last two years is assessed in this part of analysis.

Score	Description
1	Value < 5 p.p.
0,5	5 p.p.< Value < 10 p.p.
0	10 p.p.< Value < 20 p.p.
-0,5	20 p.p.< Value < 40 p.p.
-1	Value > 40 p.p.

#### Relative value of the risks accepted

#### Sources of information: Questionnaire and balance sheet.

This factor is evaluated with the ratio of average value of insured sum per contract (according to the valid agreements) to the company's equity for all types of insurance. If the concentration of risk lies within a few contracts, we assess this factor negatively. High concentration of possible payments could deplete the insurer's capital in case of an event occurrence.

Score	Description
1	The average value of insured sum <sup>15</sup> per contract ( <i>according to the valid agreements</i> )
	for all types of insurance < 10% equity value.
0,5	The average value of insured sum per contract ( <i>according to the valid agreements</i> )
	for all types of insurance < 20% equity value.
0	The average value of insured sum per contract ( <i>according to the valid agreements</i> )
	for all types of insurance < 30% equity value.
-0,5	The average value of insured sum per contract ( <i>according to the valid agreements</i> )
	for all types of insurance < 50% equity value.

<sup>&</sup>lt;sup>15</sup> The insured sum is the maximum amount of funds that an insurance company will pay to someone who makes a claim.



-1	The average value of insured sum per contract ( <i>according to the valid agreements</i> )
	at least for one type of insurance > 50% equity value.

For specialized reinsurance companies the weight of this indicator is equal to 0.

If one contract has collected several insured individuals/objects of insurance, the data on this contract must be excluded from the analysis.

High scores for reinsurance policy (1 and 0,5) can (the ratio of maximum insurance net benefit to equity and quality of reinsurance protection (analysis of ten major risks)) increase the **final** *score* by 1 or 0,5 points respectively.

#### Loss ratio divided by the insurance activity types

*Sources of information: Financial statements and questionnaire.* 

The purpose of this factor is to evaluate the effectiveness of the main activities of the company. The net loss ratio is a measure of the actual insurance loss operations (as opposed to the costs of doing business). It tells us the effectiveness of the main types of insurance for the company. A low level of loss ratio is assessed positively as it means better results from insurance operations.

Loss ratio must be analyzed for the main types of insurance. The following types of insurance are recognized as the main types:

- Types of insurance, whose share in the total net contributions is more than 20%; •
- 20%. **Description** Score 1 Loss ratio for the main types of insurance is 5p.p. or more lower than the average market values. 0,5 Loss ratio for the main types of insurance is between 5p.p. lower and 2p.p. higher than the average market values. 0 Loss ratio for the main types of insurance is between 2p.p. and 6p.p. higher than the average market values by less than 5 percentage points. Loss ratio for the main types of insurance is between 6p.p. and 8p.p. higher than the -0.5 average market values. Loss ratio for the main types of insurance is 8p.p. higher than the average market -1 values.
- Top three major types of insurance, if the share of the largest type is less than ٠

#### Technical result<sup>16</sup> divided by the types of insurance activities

Sources of information: Financial statements and questionnaire.

A positive and consistently growing technical result is evaluated favorably as it shows the effectiveness of the company's insurance activities as a whole. The technical result is

<sup>&</sup>lt;sup>16</sup> The technical result is defined as the difference between revenues and expenditures related to the insurance activities.



analyzed for the main types of insurance. The following types of insurance are recognized as the main types:

- Types of insurance, whose share in the total net contributions is more than 20%;
- Top three major types of insurance, if the share of the largest type is less than 20%.

Score	Description
1	The technical result of the main types of insurance is positive. The structure of the technical result corresponds to the structure of the insurance portfolio. AND
	Technical result for the total portfolio without the accumulated total was positive.
0,5	The technical result of the main types of insurance is positive. At the same time the structure of the technical result does not correspond to the structure of the insurance portfolio. AND
	Technical result for the total portfolio without the accumulated total was positive.
0	The technical result of one of the main types of insurance was negative at least for one quarter AND the value of this result (in absolute) is lower than 5% of contributions for this type of insurance.
-0,5	All other cases
-1	The technical result of one of the main types of insurance was negative at least for one quarter AND the value of this result (in absolute) is more than 5% of contributions for this quarter. OR
	The technical result without the accumulated total for whole insurance portfolio was negative more frequently than for one quarter within the analyzed period.

If the technical result is negative, and this negative result is related with a single large payment, the result should not be taken into account during the rating assessment.

#### 5.2.2 Client base

Weights:

	Weight	S
	For insurance c	ompanies
Factor	For non-captive	For captive
Structure of the client base	2	1
Share of dissolved contracts	2	1
Distribution channels for insurance products	1	0,5
Client acquisition costs	2	1,5
Dependence on the main clients	1,5	-
The importance of the main client for the local economy	-	3
Availability of credit ratings assigned to the main client	-	2

Factor

For reinsurance companies



Number of signed obligatory reinsurance contracts	0,75
Number of signed optional reinsurance contracts	0,75
Structure of the client base	3
Share of international business	1
Dependence on the main clients	1,5
Share of dissolved contracts	1

#### Structure of the client base

Sources of information: Questionnaire and annual reports.

A positive and diversified distribution of the client base by geography and industries affects the rating positively as it reduces the risk exposure of the insurer to certain specific segments and economies.

Score	Description
1	The client base of the company (legal entities) is diversified by countries and
	industries
0,5	More than 50% of the client base (share in contributions) of the company is formed
	by legal entities, and the company is specialized on the retail insurance
0	The client base of the company (legal entities) is concentrated in one single
	industry*, and the company is specialized on this industry
-0,5	The client base of the company is concentrated in two or three industries* (outside
	the main specialization of the company)
-1	The client base of the company (legal entities) is concentrated in one single country
	or in one single industry* (outside the main specialization of the company)

\*Industry: a set of enterprises producing (extracting) close or specific products with the same technology. Real sector includes:

- ✓ *Electric power industry;*
- ✓ Fuel industry;
- ✓ Ferrous metallurgy;
- ✓ Non-ferrous metallurgy;
- ✓ Chemical and petrochemical industry;
- ✓ Engineering and metalworking;
- ✓ Timber, woodworking industries and pulp & paper industry;
- ✓ Construction materials industry;
- ✓ Textile industry;
- ✓ Glass and porcelain industry;
- ✓ Food industry;
- ✓ Microbiological industry;
- ✓ Flour, cereal and feed mill industry;



- ✓ Medical industry;
- ✓ Printing industry.
- Agriculture;
- Forestry;
- Construction;
- Transport;
- Communication industry;
- Trade;
- Food services;
- Logistics.

#### Share of dissolved contracts

#### Sources of information: Questionnaire.

The Agency assesses the share of returned contributions as a result of the termination in the total contributions of the company. When a contract is terminated, the company incurs in several different administrative costs which have an impact on the financial result. Thus, a high share of returned contributions over total contributions has a negative impact on the reliability of the insurer.

Score	Description
1	Value < 0,7%
0,5	0,7% < Value < 1,2%
0	1,2% < Value < 2%
-0,5	All other cases
-1	Value > 5%

#### Distribution channels for insurance products

#### Sources of information: Questionnaire and financial statements.

A high level of diversification of the distribution channels is positive for the reliability rating as it reduces the concentration risk of relying on few or one source of customers. Moreover, if the insurer is heavily dependent on intermediaries, it increases the risk of not creating a stable client base. Finally, a high ratio of underwriting expenses to net premiums is a proxy for the Agency to evaluate the level of cost management practices.

Score	Description	
1	The company actively uses all existing distribution channels. The share of	
	contributions received through the main sale channel does not exceed 40%.	
0,5	The company actively uses all existing distribution channels.	
	The share of contributions received through the main sales channel is:	
	• Financial institutions /non-insurance intermediaries /brokers <50%;	
	• Direct sales through the central office /other offices /agent network	
	<65%;	



	Condition "1" is not satisfied.
0	The share of contributions received through the main sales channel is:
	<ul> <li>Financial institutions / non-insurance intermediaries / brokers &lt;65% AND direct sales through the central office / other offices / agent network &gt;20%;</li> </ul>
	<ul> <li>Direct sales through the central office /other offices /agent network &lt;85%;</li> </ul>
	Conditions "1" and "0,5" are not satisfied.
-0,5	All other cases.
-1	The share of contributions received through the main sales channel (financial
	institutions / non-insurance intermediaries / brokers) >90%.

If the underwriting expense to net premium ratio is above 45%, the factor must be assigned with a score not higher than "-0,5". A very high underwriting expense ratio indicates lack of cost management efficiency.

#### **Client acquisition costs**

#### Sources of information: Financial statements.

The amount of client acquisition costs helps us to define the efficiency of the marketing strategy of the company. A low level of this metric indicates the ability of the insurer to do business with its intermediaries.

Score	Description
1	The amount of client acquisition costs is equal or below the average market
	values.
0,5	The amount of client acquisition costs exceeds the average market values by less
	than 5 p.p.
0	The amount of client acquisition costs exceeds the average market values by less
	than 10 p.p.
-0,5	All other cases.
-1	The amount of client acquisition costs exceeds the average market values by
	more than 20 p.p.

*If more than 80% of contributions are collected directly by the company (without intermediaries), the weight of the factor becomes equal to 0.* 

#### Dependence on the main clients

#### Sources of information: Questionnaire.

A low concentration of the insurance premiums in a few clients is positive for the reliability of the company as it reduces the risk of a sudden decline in revenues in case a contract of a big customer is terminated. In order to assess this factor, The Agency takes into account the share of 5 largest customers in total contributions.

Score	Description
1	Value < 10%
0,5	10% < Value < 25%



0	25% < Value < 40%
-0,5	40% < Value < 70%
-1	Value > 70%

#### The importance of the main client for the local economy

Sources of information: Questionnaire, national statistics or other reliable sources of information.

An importance of the main client of the company has a strong effect on its financial and market position. Presence of large reliable entity in the client portfolio ensure the stable flow of GRP in the future, and therefore support the rating assessment. In addition, systematically important company may be supported by the sovereign government in the periods of economic turbulence, and this will have a positive side effect on the insurance company's financial position.

Score	Description
1	The main client of the company in the 90 <sup>th</sup> percentile in regards to revenue in
	the country where it operates.
0,5	The main client of the company in the 70 <sup>th</sup> percentile in regards to revenue in
	the country where it operates.
0	The main client of the company in the 50 <sup>th</sup> percentile in regards to revenue in
	the country where it operates.
-0,5	The main client of the company in the 30 <sup>th</sup> percentile in regards to revenue in
	the country where it operates.
-1	The main client of the company has significant financial problems

#### Availability of credit ratings assigned to the main client

Sources of information: Questionnaire, National statistics or other reliable sources of information.

This indicator is used as a proxy for the assessment of stability of GRP flow for the insurance company. Poor credit stance of the main client can harm the insurance company's financial position through the abrupt fall in obtained premiums.

Score	Description
1	The main client of the company has a rating equivalent to at least "A-" in
	international scale.
0,5	The main client of the company has a rating equivalent to at least "BB" in
	international scale.
0	A rating equivalent to at least "B+" in international scale.
-0,5	The main client of the company is not rated by any credit rating agency.
	OR
	The main client of the company has a rating equivalent to "B" or lower in
	international scale.
-1	The credit rating of the company indicates its insolvency or a high probability of
	default.

For reinsurance companies:



#### Number of signed obligatory reinsurance contracts

#### Sources of information: Questionnaire

This indicator assesses the market position of the reinsurance company specifically for the obligatory reinsurance markets.

Score	Description
1	Value > 150
0,5	150> Value > 100
0	100 > Value > 70
-0,5	70 > Value > 40
-1	Value < 40

#### Number of signed optional reinsurance contracts

#### Sources of information: Questionnaire

This indicator assesses the market position of the reinsurance company specifically for the optional reinsurance markets.

Score	Description
1	Value > 5 000
0,5	5 000> Value > 3 000
0	3 000 > Value > 2 000
-0,5	2 000 > Value > 1 000
-1	Value < 1 000

#### Structure of the client base

Sources of information: Questionnaire and annual reports.

The structure of the client base for the reinsurance companies is analyzed through the assessment of the creditworthiness of the main counterparties. High level of reliability of the companies for major part of inwards reinsurance positively affects the rating assessment.

Score	Description
1	The company receives more than 70% of contributions for Inwards reinsurance from the insurers with a credit rating equivalent to at least "A-" in international
	scale.
0,5	The company receives more than 70% of contributions for Inwards reinsurance from the insurers with a credit rating equivalent to at least "BB" in international scale.
0	The company receives more than 50% of contributions for Inwards reinsurance from the insurers with a credit rating equivalent to at least "BB" in international scale.
-0,5	All other cases.
-1	The company receives the main part of the contributions for Inwards reinsurance from the companies with ambiguous reputation, and/or through non-market methods (based on reciprocity).



#### Share of international business

#### Sources of information: Questionnaire.

The Agency positively assesses the company's involvement in the international business due to the fact that this increases the diversification of the business as well as shows the company's ability to manage the risks from different jurisdictions. The company's concentration only on the local market increases the risks related to the systematic or macroeconomic shocks.

Score	Description
1	The share of reinsurance premiums received from abroad is more than 20% of
	the total reinsurance premiums
0,5	The share of reinsurance premiums received from abroad is between 10% and
	20% of the total reinsurance premiums
0	The share of reinsurance premiums received from abroad is between 5% and
	10% of the total reinsurance premiums
-0,5	The share of reinsurance premiums received from abroad is between 0% and
	5% of the total reinsurance premiums (but not equal to 0%)
-1	The company doesn't operate in the international market

#### Dependence on the main clients

#### Sources of information: Questionnaire.

A low concentration of the insurance premiums in a few clients is positive for the reliability of the company as it reduces the risk of a sudden decline in revenues in case a contract of a big customer is terminated. In order to assess this factor, the Agency takes into account the share of 5 largest customers in total contributions.

Score	Description
1	Value < 20%
	The company has no dependence on the largest customers
0,5	20% < Value < 40%
	The company's dependence on the largest customers is insignificant
0	40% < Value < 50%
	OR
	The share of one client is between 20% and 40% of reinsurance premiums
-0,5	50% < Value < 70%
	OR
	The share of one client is between 40% and 50% of reinsurance premiums
-1	Value > 70%
	OR
	The share of one client exceeds 50% of reinsurance premiums

#### Share of dissolved contracts

#### Sources of information: Questionnaire

The Agency assesses the share of returned contributions as a result of the termination in the total contributions of the company. When a contract is terminated, the company incurs in



several different administrative costs which have an impact on the financial result. Thus, a high share of returned contributions over total contributions has a negative impact on the reliability of the insurer.

Score	Description
1	Value < 0,7%
0,5	0,7% < Value < 1,2%
0	1,2% < Value < 2%
-0,5	All other cases
-1	Value > 5%

#### 5.2.3 Reinsurance policy

Weights:

Factor	Weight
Reinsurance of big risks	
The ratio of maximum net insurance claims and benefits to equity	
Reliability of reinsurance coverage	
Reliability of reinsurance coverage (analysis for the ten largest risks)	
Reinsurance protection diversification	
Reinsurance protection efficiency (analysis of the largest benefits	
paid)	

 $\alpha$  – the factor's weight is not fixed, it depends on reinsurer's share in contributions.  $\alpha = (X - Y^*0,5)/(Y^*0,5)$ , where:

X – Weight of the section "Reinsurance policy" in total score calculation, in relation to the type of the company;

Y – Maximum possible weight of the section "Reinsurance policy" (=0,08)  $\alpha = [0;1]$ 

#### **Reinsurance of big risks**

Sources of information: Questionnaire and balance sheet.

The factor is negatively assessed if the evaluation shows an absence of reinsurance coverage for insured products which carry a high potential claim if an event were to occur. To assess this factor, the Agency analyzes the ratio of the average sum insured per one contract to equity.

Score	Description
1	Risks for all types of insurance, where the average value of the sum insured per one contract > 5% of the equity, are transferred to reinsurance. OR
	The average value of the sum insured per one contract < 5% of the equity for all types of insurance.
0,5	Risks for all types of insurance, where the average value of the sum insured per one contract > 10% of the equity, are transferred to reinsurance.
0	Risks for all types of insurance, where the average value of the sum insured per one contract > 15% of the equity, are transferred to reinsurance.



-0,5	Risks for all types of insurance, where the average value of the sum insured per
	one contract > 20% of the equity, are transferred to reinsurance.
-1	Risks for at least one type of insurance, where the average value of the sum
	insured per one contract > 20% of the equity, are NOT transferred to
	reinsurance.

If one contract includes several insured persons / insurance objects, the data for this contract shall be excluded from the analysis because it distorts the overall data.

#### The ratio of maximum net insurance claims and benefits to equity

Sources of information: Questionnaire.

The reliability of the company is positively affected if the net insurance claims it has paid in the last years are low as compared to equity as it shows a good reinsurance policy is in place.

Score	Description
1	Value < 5%
0,5	5% < Value < 10%
0	10% < Value < 15%
-0,5	15% < Value < 25%
-1	Value > 25%

The expert shall monitor the information about occurred insured events in media for events insured by the company. If the occurred insured event includes liabilities of insurance company, the expert shall assess the influence of these payments on the financial stability of the company.

#### Reliability of reinsurance coverage

#### Sources of information: Questionnaire.

If the reinsurance companies to which risk were transferred for reinsurance have rating classes above investment grade, this is assessed positively.

#### Score calculation algorithm:

The score is equal to "1", if 100% of contributions are transferred to the reinsurance company with a rating equivalent to at least "A-" in international scale.

The score is equal to  $X = 1^{*}$  (the share of reinsurers with a rating equivalent to at least "A-" in international scale) + 0,9 \* (the share of reinsurers with a rating equivalent to at least "BBB-" in international scale) + 0,75 \* (the share of reinsurers with a rating equivalent to at least "BB-" in international scale) + 0,5 \* (the share of reinsurers with a rating equivalent to at least "BB-" in international scale) + 0,5 \* (the share of reinsurers with a rating equivalent to at least "BB-" in international scale).

#### Weights calculation algorithm:

Reliability ratings	Weight
Rating equivalent to at least "A" in international scale.	1
Rating equivalent to at least "BBB" in international scale.	0,9
Rating equivalent to at least "BB" in international scale.0,75	



Rating equivalent to at least "B" in international scale.	0,5
Without rating or rating equivalent to "B-" or lower in international scale.	0

#### Reliability of reinsurance coverage (analysis of the ten largest risks)

Sources of information: Questionnaire.

The Agency analyses the reliability of the reinsurance coverage through the analysis of the creditworthiness of the counterparties for the largest transferred risks. The credit ratings of the reinsurance companies are used as main indicator.

Score	Description
1	The company transfers the risks (or part of risks), exceeding 15% of the equity,
	to the company with a rating equivalent to at least "A-" in international scale.
0,5	The company transfers the risks (or part of risks), exceeding 25% of the equity,
	to the company with a rating equivalent to at least "BBB-" in international scale.
	The company transfers the risks (or part of risks), which are in the range
	between 15% and 25% of the equity, to the company with a rating equivalent to
	at least "BB-" in international scale.
	Condition "1" is not satisfied.
0	The company transfers the risks (or part of risks), exceeding 25% of the equity,
	to the company with a rating equivalent to at least "BB-" in international scale.
	The company transfers the risks (or part of risks), which are in the range
	between 15% and 25% of the equity, to the company with a rating equivalent to
	at least "B+" in international scale.
	Conditions "0,5" and "1" are not satisfied.
-0,5	All other cases
-1	The company accepts the risks, the maximum insurance benefit/ claim which
	exceeds 25% of equity, and the company does not reinsure them.
	OR
	The company reinsures risks (or part of the risks), exceeding 25% of equity in
	companies that do not have a rating equivalent to "B" or lower in international
	scale.

#### **Reinsurance protection diversification**

Sources of information: Questionnaire and annual reports.

Based on historical data, we assess as positive a substantial diversification of reinsurers for the insurance company since it reduces the risk of non-coverage by the reinsurer in case this reinsurance has financial difficulties.

Score	Description
1	The Herfindahl-Hirschman index calculated for contributions transferred to
	reinsurance $\leq 0,15$
	AND
	The share of main reinsurance company does not exceed 20%
0,5	The Herfindahl-Hirschman calculated for contributions transferred to
	reinsurance $\leq 0,2$
	AND



	The share of main reinsurance company does not exceed 30%
0	The Herfindahl-Hirschman calculated for contributions transferred to
	reinsurance ≤ 0,3
	AND
	The share of main reinsurance company does not exceed 50%
-0,5	All other cases
-1	The share of one reinsurance company exceeds 75%

The score can be increased by one point if the main reinsurance partner has a high level of reliability.

#### The maximum potential gross insurance claim / benefit paid is higher than 5% of equity:

If the main reinsurance counterparty has a rating equivalent to at least "A+" according to the international scale, the maximum possible adjusted score is 0,5.

If the main reinsurance counterparty has a rating equivalent to at least "A-" according to the international scale, the maximum possible adjusted score is 0.

## *The maximum potential gross insurance claim / benefit paid is not higher than 5% of equity:*

If the main reinsurance counterparty has a rating equivalent to at least "A" according to the international scale, the maximum possible adjusted score is 0,5.

If the main reinsurance counterparty has a rating equivalent to at least "BBB+" according to the international scale, the maximum possible adjusted score is 0.

#### **Reinsurance protection efficiency (analysis of the largest benefits paid)**

#### Sources of information: Questionnaire and balance sheet.

The fact that the reinsurers participate in the largest claims paid by the company over the past five years is positively evaluated as it shows an adequate reinsurance policy. For this factor the Agency analyses the largest claims/benefits (more than 5% of equity).

Score	Description
1	Reinsurers participated in all of the largest benefits paid by the company.
	AND
	Maximum net retention of the company in the largest benefits paid does not
	exceed 3% of equity.
0,5	Reinsurers participated in all of the largest benefits paid by the company.
	AND
	Maximum net retention of the company in the largest benefits paid does not
	exceed 5% of equity.
0	Reinsurers participated in all of the largest benefits paid by the company.
	AND
	Maximum net retention of the company in the largest benefits paid does not
	exceed 10% of equity.
	OR
	The company has no experience in large payments.
-0,5	Reinsurers participated in all the largest benefits paid by the company.



	AND
	Maximum net retention of the company in at least one of the largest benefits paid
	is in the range between 10% and 25% of equity (other largest payments are less
	than 10%).
-1	All other cases.

#### 5.3 Finance and investments

#### 5.3.1 Liquidity and solvency

Weights:

weights.	
Factor	Weight
Ratio of liquid assets to total liabilities	1,5
Cash to net reserves	3
Experience of paying large benefits	1
Accounts receivable	1
Accounts payable	1,5
Existence of loans and credits	0,5
Existence of off-balance liabilities	1
Solvency margin	1
Adjusted solvency margin	

#### Ratio of liquid assets to total liabilities

Sources of information: Balance sheet.

In order to assess this factor as positive the insurer will have an adequate ratio of liquid assets to total liabilities which would mean that liquid assets are able to cover total liabilities of the insurer, thus, there is a high probability of repaying liabilities in the short- and mid-term perspective.

Score	Description
1	Value >1,3
0,5	1,1 < Value < 1,3
0	1,0 < Value < 1,1
-0,5	0,9 < Value < 1,0
-1	Value < 0,9

#### Cash to net reserves

Sources of information: Balance sheet and questionnaire.

This factor measures liquidity in a shorter perspective and more conservative manner. A positive assessment of this factor would mean that the insurer to cover its insurance liabilities with its most liquid assets.

Score	Description
1	Value >0,8
0,5	0,7 < Value < 0,8
0	0,5 < Value < 0,7
-0,5	0,4 < Value < 0,5



-1 Value < 0,4

#### **Experience of paying large benefits**

Sources of information: Questionnaire.

The presence of large payments in the past shows that the company has a positive experience in managing of liquidity. Thus, a combination of this experience with good financial performance is positively assessed.

Score	Description	
1	The company has experience of large benefits paid more than 10% of equity at	
	the end of the quarter during which the insured event occurred.	
0,5	The company has experience of moderate benefits paid more than 5% of equity.	
0	The company has no experience of large and / or moderate benefits paid, but at	
	the same time, the maximum value of possible gross payment does not exceed	
	5% of equity.	
-0,5	The company has no experience of large and / or moderate benefits paid, but at	
	the same time, the maximum value of possible gross payment does not exceed	
	10% of equity.	
-1	The company has no experience of large and / or moderate benefits paid, but at	
	the same time, the maximum value of possible gross payment exceeds 10% of	
	equity.	

#### Accounts receivable

#### Sources of information: Balance sheet

Low levels of receivables to assets are positively evaluated as it shows a low level of extended credit as compared to the rest of the assets.

Score	Description
1	Value < 3%
0,5	3% < Value < 7,5%
0	7,5% < Value < 12,5%
-0,5	12,5% < Value < 17%
-1	Value > 17%

#### Accounts payable

Sources of information: Balance sheet.

Low levels of payables to assets are positively evaluated as it shows satisfactory payment discipline.

Score	Description
1	Value < 3%
0,5	3% < Value < 7,5%
0	7,5% < Value < 12,5%
-0,5	12,5% < Value < 17%
-1	Value > 17%



#### **Existence of loans and credits**

#### Sources of information: Balance sheet

Despite the fact that it is not typical for insurance companies to attract external debt, the Agency considers the presence of loans and credits as an additional risk factor. In order to evaluate these risks, the ratio of debt to equity is analyzed.

Score	Description	
1	The company does not have any loans or credits.	
0,5	The ratio of debt to equity is less than 5%.	
0	The ratio of debt to equity is less than 20%.	
-0,5	The ratio of debt to equity is less than 40%.	
-1	The company attracts loans or credits, which exceeds the equity capital of more	
	than 40%.	

If the company issues bonds, the redemption of bonds and coupons is also analyzed. Thus, the company should provide the plans on redemption of bonds and coupons two weeks before the redemption date.

#### **Existence of off-balance liabilities**

#### Sources of information: Financial statements.

Low level of off-balance sheet liabilities is positive for the reliability of the insurer as it reduces the amount of obligations to cancel for the entity.

Score	Description	
1	The ratio of the off-balance liabilities to equity is less than 5%	
0,5	he ratio of the off-balance liabilities to equity is less than 10%	
0	The ratio of the off-balance liabilities to equity is less than 20%	
-0,5	The ratio of the off-balance liabilities to equity is less than 30%	
-1	The ratio of the off-balance liabilities to equity is more than 30%	

If the ratio of the off-balance liabilities to equity is more than 40% and this value is not declining, it can also be considered as a stress-factor.

#### Solvency margin

#### Sources of information: Financial statements and annual reports.

An adequate level of solvency means that a larger volume of potential losses may be incurred by the company without violating the requirements of the regulator. In order to assess this factor the Agency analyzes the ratio of the factual solvency margin to the normative value for the same reporting date.

		-1 (not more than)	1 (not less than)
The ratio of the	The value of minimum normative		
factual	solvency margin is more than the	10	50
solvency	minimum share capital		



margin to the	The value of minimum normative		
normative	solvency margin is less than the	7	35
value, %	minimum share capital		

#### Adjusted solvency margin

#### Sources of information: Financial statements and annual reports.

The Agency assesses the deviation of the adjusted actual solvency margin from the normative values. In order to calculate the adjusted actual solvency margin the assets with poor quality shall be excluded from the calculation of the actual solvency margin.

	-1 (not more than)	1 (not less than)
The ratio of the adjusted solvency margin to	5	25
the normative value, %	5	25

#### **5.3.2 Structure of financial results**

Weights:

Factor	Weight
Return on assets	2
Return on equity	0,5
Net loss ratio (NLR)	0,5
Combined loss ratio (CLR)	2
Expense ratio	1
Return on investments (ROI)	1
Other revenues and expenses	

#### **Return on assets**

#### Sources of information: Financial statements.

A low level profitability, as shown by low ROA as compared with peers, adversely affects the possibilities of capitalization of profits and, thus, negatively affects the reliability of the insurer.

Score	Description
1	ROA > 4%
0,5	4% > ROA > 2%
0	2% > ROA > 1%
-0,5	1% > ROA > 0%
-1	ROA < 0%
	OR The company did not provide financial statements

#### **Return on equity**

#### Sources of information: Financial statements.

A low level of profitability, as shown by low ROE as compared with peers, adversely affects the possibilities of capitalization of profits and, thus, negatively affects the reliability of the insurer.



Score	Description
1	ROE > B+3 p.p.
0,5	B+1 p.p.< ROE < B+3 p.p.
0	B-2 p.p. < ROE < B+1 p.p.
-0,5	All other cases
-1	ROE < B-10 p.p.

Where, B is the average value of ROE of insurance companies.

#### Net loss ratio (NLR)

#### Sources of information: Financial statements.

Low amounts of net loss ratio show low losses in the company's insurance portfolio positively affecting the rating.

Score	For retail companies	For non-retail companies
1	NLR < B	NLR < B- 7 p.p.
0,5	B < NLR < B+7 p.p.	B – 7 p.p. < NLR < B
0	B+7 p.p.< NLR < B+15 p.p.	B < NLR < B+7 p.p.
-0,5	All other cases	All other cases
-1	NLR > B+22 p.p.	NLR > B+15 p.p.

Where, B is the average value of NLR (see spread-sheet "benchmarks" in calculation file).

#### **Combined loss ratio (CLR)**

Sources of information: Financial statements.

Low metrics of expense and net loss ratios show an effective insurance business and result in a depressed combined loss ratio figure which positively affects the rating.

Score	Description
1	CLR < 98%
0,5	100% > CLR > 98%
0	102% > CLR > 100%
-0,5	107% > CLR > 102%
-1	CLR < 107%
	OR
	The company does not provide any reports

#### Expense ratio<sup>17</sup>

Sources of information: Financial statements.

Low level of expense ratio shows an effective expense administration in insurance activities.

	For retail companies	For non-retail companies	For reinsurance companies
1	Value < B-5 p.p.	Value < B-15 p.p.	Value < B <sub>re</sub> -10 p.p.

<sup>&</sup>lt;sup>17</sup> Expense ratio is an indicator which is calculated with the following formula: expense ratio = (loss adjustment expense + insurance operations net expenses + management expenses) / (net received insurance premiums).



0,	5	B-5 p.p. < Value < B	B-15 p.p. < Value < B-7	B <sub>re</sub> -10 p.p. < Value < B <sub>re</sub> -3
			p.p.	p.p.
0	)	B < Value < B+7 p.p.	B-7p.p. < Value < B	B <sub>re</sub> -3 p.p. < Value < B <sub>re</sub> +3
				p.p.
-0,	,5	All other cases	All other cases	All other cases
-1	1	Value > B+12 p.p.	Value > B+7 p.p.	Value > B <sub>re</sub> +10 p.p.

Where, B is the average value of the share of operating costs;  $B_{re}$  is the average value of the share of operating costs for reinsurance companies;

#### **Return on investments (ROI)**

Sources of information: Financial statements.

A satisfactory return on investment activity, which is one of the main sources of income for insurers, affects the rating positively.

Score	Description
1	ROI > max (B+5 p.p.;infl)
0,5	B+2 p.p. < ROI < max (B+5 p.p.;infl)
0	B-2 p.p. < ROI < B+2 p.p.
-0,5	All other cases
-1	ROI < B-7 p.p.

Where, B is the average ROI ;infl is the rate of inflation for the period of calculation of return on investment;

max (B+5 p.p.;infl) - a maximum of two values: B+5 p.p. and infl.

#### **Other revenues and expenses**

Sources of information: Financial statements.

The Agency also assesses the effectiveness of the insurance company's business in terms of other revenues and expenses.

Score	Description
1	Operating result and other net income > 0
0,5	Loss from the other operations is covered by a positive operating result
0	Operating result > 0
	AND
	Conditions "1", "0,5" are not satisfied
-0,5	All other cases
-1	Operating result and other net income <0

### 5.3.3 Asset quality

weights:	
Factor	Weight
Investment portfolio liquidity	1
Investment portfolio diversification divided by objects of investments	2



Reliability of investments	3,5
The share of affiliated counterparties and subsidiaries	1
Stability of the investment portfolio and presence of signs of manipulation	3,5
The quality of receivables	у

Where "y" - is the share of receivables in assets / 20.

#### Investment portfolio liquidity

#### Sources of information: Questionnaire

In order to assess the investment portfolio liquidity, we take into account the share of liquid assets in the investment portfolio. The liquidity of the portfolio is important for the insurer in order to be able to monetize investments in case of a sudden need to cover liabilities.

Score	Description
1	Value > 80%
0,5	70% < Value < 80%
0	60% < Value < 70%
-0,5	50% < Value < 60%
-1	Value < 50%

#### Investment portfolio diversification divided by objects of investments

Sources of information: Questionnaire.

A well-diversified portfolio across assets types, industries and regions is positive for the reliability of the insurer as it reduces the concentration risk.

Score	Description
1	The Herfindahl-Hirschman index for objects of investments ≤ 0,15
	AND
	The share of the largest object of investments does not exceed 20% of total
	investments
0,5	The Herfindahl-Hirschman index for objects of investments $\leq 0,2$
	AND
	The share of the largest object of investments does not exceed 30% of total
	investments
0	The Herfindahl-Hirschman index for objects of investments $\leq 0,3$
	AND
	The share of the largest object of investments does not exceed 50% of total
	investments
-0,5	All other cases
-1	The share of the largest object of investments exceeds 75% of total investments

#### **Reliability of investments**

#### Sources of information: Questionnaire.

The instruments included in the credit quality must be, on average, at investment grade level in order for this factor to have a highly positive score.



#### Algorithm of calculation:

Score "1", if 100% of the investments are investments in real estate, cash (cash in hand), precious metals and objects of investments with a rating equivalent to at least "A" in international scale.

Score "X" = 1 \* (the share of real estate, cash (cash in hand), precious metals and objects of investments with a rating equivalent to at least "A" in international scale) + 0,9 \* (the share of investments in the objects with a rating equivalent to at least "BBB" in international scale)+ 0,75 \* (the share of investments in the objects with a rating equivalent to at least "BB" in international scale) + 0,5 \* (the share of investments in the objects with a rating equivalent to at least "BB" in international scale) + 0,5 \* (the share of investments in the objects with a rating equivalent to at least "BB" in international scale).

#### Weighs-calculation by types of investments (except mutual funds):

Score	Weight
Rating equivalent to at least "A" in international scale.	1
Rating equivalent to at least "BBB" in international scale.	0,9
Rating equivalent to at least "BB" in international scale.	0,75
Rating equivalent to at least "B" in international scale.	0,5
Without rating or rating equivalent to "B-" or lower in international scale.	0

For mutual funds the Agency uses the rating of the Management Company and take into account the type of fund:

Score		Weight	
Asset management effectiveness rating of the managing company	Open-end funds	Interval fund OR Closed- end funds	Closed- end funds of real estate
Rating equivalent to at least "A" in international scale.	1	0,75	1
Rating equivalent to at least "BBB" in international scale.	0,9	0,5	1
Rating equivalent to at least "BB" in international scale.	0,75	0,25	0,9
Rating equivalent to at least "B" in international scale.	0,5	0	0,75

#### The share of affiliated counterparties<sup>18</sup> and subsidiaries

#### Sources of information: Questionnaire.

In order for this factor to positively affect the rating, the share of affiliated counterparties and subsidiaries in the total investment portfolio will be insignificant. The willingness of insurers to place funds in affiliated structures leads to increased risks associated with the possible default of one or more associated companies.

<sup>18</sup> Affiliated counterparties (in the broadest sense) – entities related to the insurance company (e.g. they can have the same owner, they can be included in the one holding structure, etc.).



0,5	20% < Value < 30%
0	30% < Value < 40%
-0,5	40% < Value < 50%
-1	Value > 50%

If the government owns more than 50% of the analyzed company, the weight factor is equal to zero. In other cases, when calculating the indicator of investment affiliation, the share of investments in the affiliated assets owned by the government, is equal to zero.

Assessment of the factor can be increased by one point, if affiliated investment objects have a high level of reliability. If affiliates have a rating equal to the sovereign credit rating of the government where the security was issued, the maximum possible score after adjustment is 0,5.

## Stability of the investment portfolio and presence of signs of manipulations with investment portfolio

Sources of information: Questionnaire.

The stability of the portfolio in regard to types of investments shall be substantial in order to have a positive impact on the reliability of the insurer. A low fluctuating value of the portfolio and the types of assets allow for a better and more predictable portfolio management strategy.

#### Average of the two scores:

Score	Description
1	The structure of the company's investment portfolio is stable regarding the types of
	investments and investment objects (fluctuations of less than 15 percentage points).
0	The structure of the company's investment portfolio is moderately unstable
	regarding the types of investments and investment objects (fluctuations from 15 to
	30 percentage points).
-1	The structure of the company's investment portfolio is very unstable (fluctuations
	are more than 30 percentage points).

When analyzing the following signs of manipulations, the Agency takes into account the "scale" of each "sign", i.e. the sign cannot be considered if the scale is insignificant.

Signs of manipulations with securities portfolio	Yes ("-1") / No ("-1")	
1. Inconsistency between investments reflected in the Questionnaire, and investments reflected in the Balance sheet.		
2. Absence of statements about the Securities OR any doubts about correctness of these statements.		
3. Increase of the share of bills on non- reporting date, turnovers on bills and issued loans on non- reporting dates.		
4. The share of stock-market instruments in investment portfolio is more than 50% AND the company has no regulations on market risk management and related infrastructure (for the stock instruments).		
5. Inconsistency between ROI and investment portfolio structure (for example, high return on investment (much higher than the average rate on deposits) with high share of funds on current accounts).		



6. The presence of significant accounts payable and / or accounts receivable for securities transactions (on the basis of additional request), the same problem for	
a loan.	
7. The presence of debt on REPO's transactions (for example, in the balance sheet).	
8. Extremely high turnover on investments.	
9. Securities (bonds) are to be sold before coupon payment / redemption.	
10. Significant changes in the structure of investment portfolio by types of	
investment (for instance, the largest type of investments was changed from	
securities to real estate).	
11. The expert requested the contract of securities purchasing but the company	
did not provide it (if the company explained that securities were purchased on the	

stock market, the expert shall request broker's report).

1	All mentioned signs are absent		
0	One of the mentioned signs is identified		
-1	Two or more of the mentioned signs are identified		

#### The quality of receivables

#### Sources of information: Financial statements.

A low share of outstanding receivables in the total receivables is positively evaluated as it shows satisfactory collecting discipline.

Score	Description
1	Value <3%
0,5	3% ≤ Value ≤ 7%
0	7% ≤ Value ≤ 15%
-0,5	15% ≤ Value ≤ 25%
-1	Value ≥ 25%

#### 6. System of indicators for the Industry Sector Risk (ISR) score

#### **6.1 Insurance Market Penetration**

With this indicator we assess the importance of the insurance market in a specific country. For this purposes, the penetration as the percentage of non-life insurance premiums to the country's GDP is measured. A positive evaluation is given if the ratio is high as compared to the global and regional average.

#### 6.2 Section Insurance Market Density

This indicator allows the Agency to measure the usage of insurance products within a country. Density is calculated as the amount on non-life insurance premiums per capita. It will be favourable for the ISR a score if the ratio is high as compared to the global and regional average.



#### 6.3 Section Country Score

The purpose of this section is to assess the state of the credit environment in the economy or economies where the company operates through a thorough consideration of both the Sovereign Risk by using our Country Credit Environment (CCE) rating score and the state of the Banking System by using Banking Sector Risk (BSR) score.

#### **6.4 Adjustment Factors**

A number of qualitative factors are introduced in order to allow the Insurance Sector Risk to be manually adjusted for the effects that are not precisely captured by the quantitative analysis.

		ISR					
_		1	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6
	1	1	1 / 0,9	0,85 / 0,75	0,75 / 0,6	0,6 / 0,5	0,4 / 0,35
	0,95	1 / 0,95	0,95 / 0,85	0,85 / 0,75	0,7 / 0,6	0,55 / 0,45	0,4 / 0,35
	0,9	0,95	0,95 / 0,85	0,85 / 0,75	0,7 / 0,6	0,55 / 0,45	0,4 / 0,3
	0,85	0,95	0,9 / 0,85	0,8 / 0,7	0,7 / 0,55	0,55 / 0,45	0,4 / 0,3
	0,8	0,95 / 0,9	0,9 / 0,8	0,8 / 0,7	0,65 / 0,55	0,55 / 0,4	0,35 / 0,3
	0,75	0,9 / 0,85	0,85 / 0,75	0,75 / 0,65	0,65 / 0,5	0,5 / 0,4	0,35 / 0,25
5NI	0,7	0,85 / 0,8	0,85 / 0,7	0,75 / 0,6	0,6 / 0,5	0,45 / 0,35	0,3 / 0,25
PRELIMINARY RELIABILITY RATING	0,65	0,8	0,8 / 0,7	0,7 / 0,6	0,55 / 0,45	0,45 / 0,35	0,3 / 0,25
ΥŢ	0,6	0,8 / 0,75	0,75 / 0,65	0,65 / 0,55	0,55 / 0,45	0,4 / 0,3	0,3 / 0,25
BILI	0,55	0,75	0,75 / 0,65	0,65 / 0,55	0,5 / 0,4	0,4 / 0,3	0,25 / 0,2
ELIA	0,5	0,75	0,7 / 0,65	0,6 / 0,55	0,5 / 0,4	0,4 / 0,3	0,25 / 0,2
Y RI	0,45	0,75 / 0,7	0,7 / 0,6	0,6 / 0,5	0,5 / 0,4	0,35 / 0,3	0,25 / 0,2
NAR	0,4	0,7 / 0,65	0,7 / 0,6	0,6 / 0,5	0,5 / 0,35	0,35 / 0,25	0,25 / 0,2
IWI	0,35	0,65	0,65 / 0,55	0,55 / 0,45	0,45 / 0,35	0,3 / 0,25	0,2 / 0,15
REL	0,3	0,6 / 0,55	0,6 / 0,5	0,5 / 0,4	0,4 / 0,3	0,3 / 0,2	0,2 / 0,15
	0,25	0,55 / 0,5	0,55 / 0,4	0,45 / 0,3	0,35 / 0,25	0,25 / 0,15	0,2 / 0,15
	0,2	0,45 / 0,4	0,45 / 0,3	0,4 / 0,25	0,3 / 0,2	0,2 / 0,15	0,15 / 0,1
	0,15	0,4 / 0,3	0,35 / 0,25	0,3 / 0,2	0,25 / 0,15	0,15 / 0,1	0,1
	0,1	0,3 / 0,1	0,25 / 0,1	0,2 / 0,1	0,15 / 0,1	0,1	0,1
	0,05	0,1	0,1	0,1	0,1	0,1	0,1
	0	0	0	0	0	0	0

#### Scoring algorithm:



# 7. The rules for the determination of the outlook on the rating of the financial reliability

Rating-Agentur Expert RA GmbH determines the rating outlook according to this methodology. Rating outlook means the opinion of the Agency on the probability of changes of the rating in one-year perspective (unless indicated otherwise). The reliability rating of the rated entity can be assigned with one of the following outlooks:

- Positive outlook (high probability of rating upgrade within the following 12 months);
- Negative outlook (high probability of rating downgrade within the following 12 months);
- Stable (high probability of rating maintenance within the following 12 months);
- Developing outlook (the probability of the following rating actions is equal for the 3 months horizon: upgrade, downgrade and rating maintenance).

The outlook on the rating of the company is based on the Agency's expectations about the dynamics of the indicators, used in this methodology, i.e. the outlook is affected by the same factors as the assigned rating, including the stress- and support-factors. The rating outlook is applicable only for the reliability rating (not for the stand alone reliability rating).

When assigning the outlook, the Agency takes into account the historical data of the rated entity, data from the entity's strategy, the Agency's own macroeconomic forecast.

When assessing the rated entity's perspectives the Agency uses the key rating assumptions for the possible scenarios of the entity's dynamics, as well as the probability of each scenario. Such scenarios are the subjective opinion of the members of the rating committee. These scenarios can be based on the official strategy of the rated entity and internal calculations of the Agency. The outlook is sensitive to the final decision of the rating committee in the most probable scenario of the entity's dynamics. The planned changes in the regulation are taken into account for the outlook determination if they can have a significant influence on the rating.

The rating committee can determine the criteria, satisfaction or non-satisfaction of which, can lead to the changes in the rating (rating sensitivity).