

Pursuant to Article 83 paragraph 5 and Article 177 paragraph 4 of the Law on Insurance (Official Gazette of the Republic of Montenegro, 78/06 and 19/07), at the session held on 14 November 2008, the Council of the Insurance Supervision Agency adopted the

RULEBOOK ON DETAILED CRITERIA AND MANNER OF CALCULATING RISK EQUALIZATION RESERVES

**(Official Gazette of Montenegro, 70/08 of 19 November 2008, and 01/13 of 3
January 2013)**

General Provisions

Article 1

This Rulebook governs the detailed criteria and the manner of calculating the risk equalization reserves or calculating of the ceiling of the liability for establishing such reserves, the calculating of the amount, as well as the increase or reduction of these reserves, basic data for calculating annual relevant loss ratio and standard deviations of such ratio from the average relevant loss ratio of the observed period.

Article 2

For the purpose of this Rulebook, some specific terms shall have the following meaning:

- 1) **Observed period** shall mean a period for which loss ratio and standard deviation of such ratio from the average loss ratio in an individual class of non-life insurance is determined, and it must include at least the period of the last ten years, unless the risk deviations in that period are significant in relation to the average relevant loss ratio in that class of the non-life insurance, and in such case even longer period can be used;
- 2) **Annual relevant loss ratio** shall mean a quotient of relevant claims and relevant technical premiums in retention in the given year, shown as decimal number rounded to the fourth decimal place;
- 3) **Average relevant loss ratio in the observed period** shall mean the arithmetic mean of the annual relevant loss ratios in the observed period;
- 4) **Relevant technical premium in retention**, specifically for each class of non-life insurance and in total for all classes, shall mean a technical premium in retention generated in the current year and increased by the amount of technical unearned premium in retention calculated at the end of the previous year and reduced by the amount of technical unearned premium calculated at the end of the current year;
- 5) **Relevant claims in retention**, specifically for each class of non-life insurance and in total for all classes, shall mean the total settled claims in retention during the current year, increased by the amount of total claims outstanding in retention at the end of the current year and reduced by the amount of claims outstanding in retention at the end of the previous year and by the amount of recourses collected during the current year. Relevant claims shall also contain loss adjustment and payment costs;

- 6) **Technical premium in retention** shall mean the own portfolio technical premium, increased by the technical premium that refers to the premium received in co-insurance and reduced by the technical premium transferred to co-insurance and reinsurance;
- 7) **Claims in retention** shall mean the own portfolio claims, increased by the claims based on received co-insurance and reduced by claims transferred to co-insurance and reinsurance;
- 8) **Current year** shall mean the period from 1 January to 31 December of the year for which the calculation of the risk equalization reserves is made.

Notwithstanding paragraph 1 item 1 of this Article:

- a) for insurance or reinsurance companies that had operated under the Law on Insurance of Property and Persons (Official Gazette of the Federal Republic of Yugoslavia 30/96 and 53/99) for a period longer than five years until the day the Law on Insurance (Official Gazette of the Republic of Montenegro, 78/06) entered into force – the *observed period* for the first calculation, starting from 31 December 2006 shall be the period of the last five years, including 2006, provided that the observed period for each subsequent calculation shall be extended by one year until the period of ten years or more is reached;
- b) for insurance companies that operated under the same law for less than five years, as well as for the insurance companies incorporated under the Law on Insurance (Official Gazette of the Republic of Montenegro, 78/06) – the *observed period* for the first calculation, starting from 31 December 2006, shall be the period from the day of incorporation until the day of calculation of the risk equalization reserves, provided that the observed period for each subsequent calculation shall be extended by one year until the period of ten years or more is reached.

Special Provisions

Article 3

The insurance company (hereinafter referred to as the company) engaged in pursuit of credit insurance shall be obliged to form the risk equalization reserves for such class of insurance in a manner set forth by this Rulebook.

The company may form the risk equalization reserves for each class of insurance where based on statistical data a sizeable deviation of annual losses amount could be expected.

Article 4

The risk equalization reserves shall be established based on the standard deviation of annual relevant loss ratios from the average relevant loss ratio in the observed period for each class of insurance (hereinafter referred to as the standard deviation).

The base for calculation of the risk equalization reserve shall make the technical premium in a self-insured retention generated in the current year and the standard deviation.

The company shall establish the risk equalization reserves in accordance with Articles 8 and 9 of this Rulebook if the standard deviation is at least 0.05 or if annual relevant loss ratio in the observed period for that class of insurance was at least once higher than 1 in any of the years.

If none of the conditions referred in paragraph 3 of this Article are met, the risk equalization reserves of such class of insurance established in accordance with this Rulebook shall be reduced by one fifth (1/5) at the end of each year in the following five years, including also the year in which it was established that none of the conditions referred to in paragraph 3 of this Article were met.

Article 5

The risk equalization reserves shall be calculated based on the balance as of 31 December of the current year.

Article 6

The average relevant loss ratio and standard deviation shall be calculated by applying the following statistical formula for arithmetic mean, i.e. for standard deviation:

$$\bar{x}_j = \frac{1}{n} \sum_{i=1}^n x_{ij}, \text{ односно } s_{(x_{ij})_j} = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (x_{ij} - \bar{x}_j)^2}, \text{ where}$$

j - Class of insurance ($j=1, 2, 3...19$),

n - Observed period ($i=1, 2, 3...n$),

x_{ij} - average relevant loss ratio in the class of insurance j in the observed period,

$S(x_{ij})_j$ - sample-based standard deviation,

x_{ij} - annual relevant loss ratio in the class of insurance j in the year i .

The average relevant loss ratio and the standard deviation shall be shown as decimal number rounded to the fourth decimal place.

The annual and average relevant loss ratios and corresponding standard deviations shall be determined only on 31 December in the year of the observed period.

Article 7

The ceiling of the liability for establishing the risk equalization reserve as of 31 December shall be the following:

- 1) for credit insurance and crop insurance the product of the multiplication of the sextuple standard deviation and the corresponding annual technical premium in a self-insured retention generated in the current year
- 2) for all other classes of insurance - the product of the multiplication of the quadruple standard deviation and the corresponding annual technical premium in a self-insured retention generated in the current year.

Article 8

The company shall increase the risk equalization reserves by 3.5% of the ceiling calculated in accordance with Article 7 of this Rulebook for each calculation until the ceiling is reached.

The company shall additionally increase, for each calculation, the risk equalization reserve in each class of insurance in which the annual relevant loss ratio of such class of insurance in the current year is lower than the average relevant loss ratio of the same class of insurance in the observed period.

The additional increase referred to in paragraph 2 of this Article shall be calculated as the product of the multiplication of the difference between the average relevant loss ratio and the annual relevant loss ratio of the current year and the technical premium in retention generated in the current year of such class of insurance on the other side.

When the difference referred to in paragraph 3 of this Article is higher than 0.07, the additional increase referred to in this paragraph shall be calculated by multiplying the technical premium in retention generated in the current year by 0.07.

The risk equalization reserves shall be increased in accordance with this Article until the ceiling referred to in Article 7 of this Rulebook is reached.

Article 9

The company shall be obliged to reduce the risk equalization reserve in the process of calculation if the annual relevant loss ratio in the current year is higher than the average relevant loss ratio in the observed period.

The reduction referred to in paragraph 1 of this Article shall be calculated by multiplication of the difference between the annual relevant loss ratio in the current year and the average relevant loss ratio in the observed period, and the technical premium in retention generated in the current year for the given class of insurance.

The reduction referred to in this Article shall follow the calculated increase of the risk equalization reserve referred to in Article 8 paragraph 1 of this Article.

Final Provisions

Article 10

The company shall present the calculation of annual and average relevant loss ratios and the standard deviation in a special form - Form TR.

The company shall present the calculation of the risk equalization reserves in the Form RZIR.

The forms referred to in paragraphs 1 and 2 of this Article are attached as Annex I and make an integral part of this Rulebook.

Article 11

The company shall be obliged to submit the forms referred to in Article 10 of this Rulebook to the Insurance Supervision Agency within the deadline set forth in the Rulebook on the content of the reports, notifications and other data that an insurance company submits to the Insurance Supervision Agency and the manner and deadlines for the submission thereof.

Article 12

Deleted

Article 13

This Rulebook shall enter into force on the eighth day following the day of its publication in the Official Gazette of Montenegro.

Number: SS-55/08
Podgorica, 14 November 2008

President of the Council of the Agency
Vladimir Kavarić, MSc.

NOTE:

The consolidate text of the Rulebook does not include the following provisions of the Rulebook on Amendments and Supplements to the Rulebook on Detailed Criteria and Manner of Calculating the Risk Equalisation Reserves (*Official Gazette of Montenegro, No 01/13 of 3 January 2013*):

“Article 7

Amended Form TR and Form RZIR shall make an integral part of this Rulebook.

Article 8

This Rulebook shall enter into force on the eighth day following the day of its publication in the Official Gazette of Montenegro.

Number: 01-1358/10-12

Podgorica, 28 December 2012

President of the Council

Branko Vujović, m.p.”

Forms attached to the Rulebook on Detailed Criteria and Manner of Calculating the Risk Equalization Reserve
Form TR

Annual and Average Relevant Loss Ratio and Standard Deviation

Code	Class of Insurance (j)	Annual relevant loss ratio (x_{ij}) in the year									Average relevant loss ratio of the observed period $\frac{x_j}{10}$	Standard deviation $S(x_{ij})$
		...	n-9	...	n-5	n-4	n-3	n-2	n-1	n		
		1	2	3	4	5	6	7	8	9		
01	Accident insurance											
02	Voluntary health insurance											
03	Motor vehicle insurance											
04	Rail-borne vehicle insurance											
05	Aircraft insurance											
06	Watercraft insurance											
07	Goods in transit insurance											
08	Property insurance against fire and other perils											
09	Other property insurance											
10	Motor vehicle liability insurance											
11	Aircraft liability insurance											
12	Watercraft liability insurance											
13	General liability											

	insurance										
14	Credit insurance										
15	Surety insurance										
16	Financial losses insurance										
17	Legal protection insurance										
18	Travel insurance										
19	Other non life insurance classes										

Note: In this Form, the annual relevant loss ratio of the current year is added to annual relevant loss ratios for each subsequent year, and if the observed period is exceeded, the oldest annual relevant loss ratio shall be omitted. Then the average relevant loss ratio in the observed period (column 10) and the standard deviation (column 11) are calculated.

When the relevant technical premium in a self-insured retention of one of the years equals to zero (0), the zero (0) value is taken for the annual relevant loss ratio of such year.

Calculation of the Risk Equalization Reserve

Code	Class of insurance (j)	Technical premium in a self-insured retention of the current year	Standard deviation $S(x_{ij})$	Number of standard deviations of Article 7	Ceiling of establishing the risk equalization reserves from Article 7 (1*2*3)	Average relevant and loss ratio of the observed period	Annual relevant and loss ratios of the current year	Balance of the risk equalization reserves at the beginning of the current year	Increase in the reserves according to Article 8 paragraph 1 (0.035*4)	Additional increase in the reserves according to Article 8 paragraph 2	Reduction in reserves according to Article 9 or Article 4 paragraph 2	Balance of the reserves at the end of the current year (7+8+9-10)
		1	2	3	4	5	6	7	8	9	10	11
01	Accident insurance											
02	Voluntary health insurance											
03	Motor vehicle insurance											
04	Rail-borne vehicle insurance											
05	Aircraft insurance											
06	Watercraft insurance											
07	Goods in transit insurance											
08	Property insurance against fire and other											

	perils											
09	Other property insurance											
10	Motor vehicle liability insurance											
11	Aircraft liability insurance											
12	Watercraft liability insurance											
13	General liability insurance											
14	Credit insurance											
15	Surety insurance											
16	Financial losses insurance											
17	Legal protection insurance											
18	Travel insurance											
19	Other non life insurance classes											
Total:												

Instructions for filling out the Form RZIR

The amount of the technical premium in a self-insured retention of the current year is entered the column 1.

Standard deviation is transferred from the column 11 of the Form TR to the column 2.

The technical premium in a self-insured retention in the current year multiplied by the standard deviation multiplied by the corresponding number of standard deviations is entered the column 4 (columns 1x2x3).

The average relevant loss ratio is transferred from the Form TR (column 10) to the column 5.

The relevant loss ratio of the current year is transferred from the Form TR (column 9) to the column 6.

The balance of the risk equalization reserve at the beginning of the current year is entered in the column 7.

3.5% of the amount from column 4 (column 4x0.035) is entered the column 8.

Additional increase of the risk equalization reserves calculated according to Article 8 paragraph 2 of this Rulebook is entered the column 9.

Reduction of the risk equalization reserves calculated according to Article 9 or Article 4 paragraph 2 of this Rulebook is entered the column 10.

The balance of the risk equalization reserves determined at the end of the current year as the difference between the sum of the amounts in columns 7, 8 and 9 and reduced by the amount from the column 10 is entered in the column 11.

When an obtained amount in the column 11 is negative, the amount of zero (0) monetary units is entered.