Pursuant to Article 83 paragraph 6, Article 87 and Article 177 item 4 of the Law on Insurance (Official Gazette of the Republic of Montenegro, No 78/06 and 19/07 and Official Gazette of Montenegro, No 45/12), at the session held on 26 December 2012, the Council of the Insurance Supervision Agency adopted the

# RULEBOOK ON DETAILED CRITERIA AND MANNER OF CALCULATING MATHEMATICAL PROVISIONS AND SPECIAL PROVISIONS FOR THE LIFE INSURANCE WHERE THE INVESTMENT RISK IS BORNE BY THE INSURED PERSON

## (Official Gazette of Montenegro, No 01/13 of 3 January 2013)

## I GENERAL PROVISION

#### Article 1

This Rulebook governs the detailed criteria and the manner of calculating the mathematical provisions and special provisions for the life insurance were the investment risk is borne by the insured person.

## II MATHEMATICAL PROVISIONS

## Article 2

The insurance company (hereinafter referred to as the company) shall be obliged to set up the mathematical provisions for all long-term insurance contracts where the savings funds or funds for risk coverage in later insurance years are accumulated, and specifically for:

life insurance;

- other insurance with multi-year duration where the probability distribution tables and calculations as for a life insurance are used.

## Methods and Principles of Calculation

## Article 3

The mathematical provisions shall be calculated using sufficiently prudent actuarial valuation a difference of present value of all future liabilities arising from the insurance contracts, including:

- guaranteed benefits, including guaranteed surrender values;
- bonuses to which the policyholders are individually or collectively entitled;
- other rights the policyholder may have on the basis of the insurance contract;
- expenses, including also commissions,

and present values of all future liabilities of policyholders under each of those insurance contracts.

Prudent calculation of the mathematical provisions may include appropriate margin for adverse deviation of the relevant factors.

The company must also take into account, in an appropriate manner, the valuation methods of assets covering the mathematical provisions when selecting the actuarial valuation method.

## Article 4

The mathematical provisions shall be calculated separately for each insurance contract by applying the prospective rating method.

Notwithstanding paragraph 1 of this Article, the Agency may allow the use of the retrospective rating method in case of insurance contracts where it is not possible to apply the prospective rating method or if it is proven that an amount obtained by use of the retrospective method is not less than the amount obtained by the prospective method.

Notwithstanding paragraph 1 of this Article, the Agency may allow the use of appropriate approximation values or generalisation if the amount obtained by use of these methods is not less than the amount obtained by using individual calculations.

The principle of individual calculations shall not prevent the obligation to establish additional provisions for general risks which are not individualised.

A method for calculating the mathematical provisions cannot be arbitrarily changed during the insurance coverage.

## Article 5

Mathematical provisions for insurance concluded in a foreign currency shall be calculated separately for each currency and stated in such currency and in euro, according to the median exchange rate of the Central Bank of Montenegro on the day of the calculation of such provisions.

## Article 6

The method for calculating the mathematical provisions in the case of participating contracts may implicitly take into account future bonuses of all kinds in a manner consistent with other assumptions on future experiences and with the current method on distribution of bonuses.

## Article 7

The mathematical provisions can be reduced by un-depreciated actual insurance acquisition costs (Zillmerising), whereby the Zillmerised rate cannot exceed 3.5% of the

contracted sum or sum of contracted premiums for annuity insurance (in both cases excluding profit).

The same base shall be used for calculating the pure premium in the mathematical provisions calculation, discounting of the un-depreciated insurance acquisition costs calculation and discounting value of future liabilities calculation.

If the future expected expenses for existing insurance contracts are higher than expenses implicitly included in the mathematical provisions calculation (the difference between the contracted gross premium and pure premium used in the mathematical provisions calculation increased by the allowable Zillmerisation amount), the insurance company shall be obliged to form additional provisions.

## Article 8

If a negative result is obtained when calculating the mathematical provisions, the mathematical provisions shall be positioned to zero (0).

On the day of calculation the mathematical provisions shall be obtained by linear interpolation of the mathematical provisions calculated at the beginning and at the end of the current insurance year and shall not be adjusted by the amount of overpayment or remainder as of such day.

If the surrender value of the insurance is guaranteed, the amount of the mathematical provisions must be at least equivalent to the amount of such surrender value.

For insurances for which the mathematical provisions are calculated, the unearned premium is included in the mathematical provisions.

## Interest Rate Article 9

Interest rate used in the mathematical provisions calculation must be established prudentially in order to ensure payment of contracted insured sums under concluded insurance contracts.

The company shall be obliged to take into account, when selecting the interest rate, the safety of depositing and investing the mathematical provisions funds and the level of yield generated from such investments.

The interest rate applied in the mathematical provisions calculation cannot exceed:

- 60% of the average interest rate on bonds issued by a State in whose currency the contract is denominated;
- Average yield the company had by investing the mathematical provisions funds in the previous three years.

The Agency shall publish annually the interest rate referred to in paragraph 3 indent 1 of this Article.

The average yield referred to in paragraph 3 indent 2 of this Article shall be calculated as weighted average yield on the mathematical provisions in the last three years, whereby the weight is equal to average value of the mathematical provisions during the financial year.

Provisions of this Article shall not apply to the mathematical provisions of the life insurance were the investment risk is borne by the insured person.

## Probability Distribution Tables Article 10

Probability distribution tables shall be used to calculate the mathematical provisions as published by the competent state authority.

Notwithstanding paragraph 1 of this Article, other probability distribution tables may also be used, with the consent of the Agency, if their application results in the higher mathematical provisions.

In case of insurance contracts where assumptions on decreased mortality increase the mathematical provisions, when determining mortality in the calculation of the mathematical provisions, the company shall be obliged to apply adequate corrections for future mortality decrease.

In case of life insurance covering the mortality risk and health insurance, when determining the mortality and morbidity probability, possible changes in risk of known diseases the effect thereof is not recorded in the existing probability distribution tables shall be taken into account.

## Reinsurer's Share in Mathematical Provisions Article 11

Share of the reinsurer in the mathematical provisions shall be calculated in line with the provisions of a reinsurance contract.

The company shall be obliged to invest the reinsurer's share exceeding 15% of the total calculated mathematical provisions in forms stipulated by the rulebook governing limitations concerning depositing and investing the technical provisions.

Provisions of paragraph 2 of this Article shall not apply if only mortality risk is reinsured.

# III SPECIAL PROVISIONS FOR BENEFITS INSURED UNDER INSURANCE CONTRACT DIRECTLY LINKED WITH THE INVESTMENT VALUE

## Article 12

For the life insurance were the investment risk is borne by the insured person the special provisions, in addition to the mathematical provisions, shall also be established for benefits insured under an insurance contract directly linked with the investment value.

## Article 13

When the benefits insured under a contract are directly linked to the value of investment fund units or to the value of assets within the investment fund, usually divide into units, the special provisions for such benefits must be calculated as close as possible to the value of such unit or if units are not defined to the value of such assets.

## Article 14

When the benefits insured under a contract are directly linked to share index or some other reference value different from those referred to in the previous Article, the special provisions for such benefits must be calculated as close as possible to the value of the unit deemed to represent the reference value or, in the case units are not defined, to assets with an adequate security and possibility of sale which corresponds as close as possible to those on which a specific reference value is based.

## Article 15

The value of the special provisions referred to in Article 12 of this Rulebook shall be calculated as a number of units assigned to the insurance contract multiplied by a corresponding unit value or, if units are not determined, the value at the date of valuation of any other measurement of assigning to a contract which is equivalent to units.

## Article 16

For the life insurance were the investment risk is borne by the insured person, no impairment of the special reserves for un-depreciated insurance acquisition costs shall be permitted.

## Article 17

The company may defer the insurance acquisition costs and state them in accordance with the accounting standards of the company up to the amount of actual insurance acquisition costs, but not exceeding 3.5% of the lower of:

- i. The amount that would be paid in case of death on the valuation date; or
- ii. The sum of values, on the valuation date, of units assigned to the insurance contract (or if units are not determined, the value on the valuation date of any other measurement of assigning to a contract which is equivalent to units) and the total amount of future premiums during the insurance validity, including the premiums paid up to the age of 75 of insured person.

# IV REPORTING

## Article 18

The company shall report to the Agency the level of the calculated mathematical provisions and special provisions on the last day of the current accounting period, and so as follows:

- on 31 December of the current year (annual calculation);
- on 31 March, 30 June, and 30 September of the current year (in-year calculations);
- on the day of the portfolio transfer.

An overview of assumptions and methods used to calculate the mathematical provisions shall be an integral part of an actuarial report.

Amount of the additional provisions referred to in Article 4 paragraph 4 of this Rulebook, as well as assumptions and methods for calculation of the additional provisions, shall make an integral part of the Report of an authorised actuary on the mathematical provisions calculation.

Amount of the additional provisions referred to in Article 7 paragraph 3 of this Rulebook, as well as assumptions and methods for assessment of future costs, shall make an integral part of the Report of an authorised actuary on the mathematical provisions calculation.

## Article 19

As of the day this Rulebook enters into force, the Rulebook on Detailed Criteria and Manner of Calculating Mathematical Reserves and Bonus Reserves (Official Gazette of Montenegro, No 70/08) shall cease to have effect.

## Article 20

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

Number: 01-1358/5-12 Podgorica, 26 December 2012

President of the Council Branko Vujović, m.p.