

Pursuant to Article 116, paragraph 8 of the Insurance Law (RS Official Gazette, No 139/2014) and Article 15, paragraph 1 of the Law on the National Bank of Serbia (RS Official Gazette Nos 72/2003, 55/2004, 85/2005 – other law, 44/2010, 76/2012, 106/2012 and 14/2015), the Executive Board of the National Bank of Serbia issues

## **D E C I S I O N O N T E C H N I C A L P R O V I S I O N S**

### **I. INTRODUCTORY PROVISIONS**

1. This Decision sets out the criteria, manner and timeframe for calculating and determining technical provisions sufficient to cover all liabilities stemming from insurance and/or reinsurance contracts (hereinafter: the contract).

2. Depending on the classes of insurance it carries on, and/or risks it covers, an insurance and/or reinsurance undertaking (hereinafter: undertaking) shall determine the following technical provisions:

- 1) unearned premium reserves;
- 2) unexpired risk reserves;
- 3) reserves for bonuses and rebates;
- 4) outstanding claims reserves;
- 5) mathematical reserves;
- 6) reserves for insurance where the investment risk is borne by the insured;
- 7) risk equalisation reserves;
- 8) other technical provisions.

3. Technical provisions shall be calculated on the last day of the current period, as follows:

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

4. An undertaking shall calculate and disclose technical provisions separately for life insurance and non-life insurance, by related risks within a class of insurance, and/or by class of insurance (hereinafter: homogeneous risk group).

5. An insurance undertaking shall calculate the technical provisions prudently, reliably and objectively, by applying actuarial principles, rules of insurance profession and relevant actuarial and statistical methods.

6. Technical provisions shall be calculated based on updated and reliable data, including data from financial markets and other publicly available data.

Calculation of technical provisions shall be based on realistic assumptions and relevant data about the characteristics of insurance portfolio and the risks that are being accepted.

An undertaking shall set up procedures to ensure that data used in calculation of technical reserves are suitable for the purpose, complete and accurate.

7. When calculating technical provisions, an undertaking shall take into account the rights that a policyholder, the insured, insurance beneficiary and injured party may be entitled to under the insurance contract, in particular:

- 1) all benefits, including expected future bonuses, regardless whether guaranteed or not;
- 2) all expenses arising from fulfilment of liabilities stemming from insurance;
- 3) increase in the amount of claims and expenses.

8. The established amounts of individual technical provisions and the underlying assumptions and data used in their calculation shall be compared against liabilities stemming from contracts and/or experience at least annually and across homogenous risk groups. Where the comparison identifies systematic deviation between experience and the amount of established technical provisions, assumptions and data, an undertaking shall make appropriate corrections and adjustments to the calculation.

An undertaking shall set up procedures for comparison of the established amount of technical provisions, assumptions and data with experience, as well as define actions to be taken in case of systematic deviation.

9. An undertaking shall determine technical provisions in the amount sufficient to cover all liabilities under the contracts.

An undertaking shall verify, at least annually, whether the amount of individual technical provisions is sufficient and/or adequate to cover all liabilities under the contracts. Where technical reserves are established to be

inadequate, the undertaking shall make appropriate corrections and adjustments to the calculation, including the correction in the amount of technical reserves.

An undertaking shall set up procedures for verifying adequacy of technical provisions for coverage of all liabilities under the contracts, and define actions to be taken in case individual technical provisions are established to be inadequate upon verification.

10. An undertaking shall disclose technical provisions in full amount in its business books, prior to deductions of the amount recoverable from coinsurance and reinsurance.

11. An undertaking shall adopt rules regulating the criteria, manner and deadlines for calculating and determining technical provisions and submit them to the National Bank of Serbia.

An undertaking shall systematically apply the defined criteria and the manner of calculation of technical provisions, while the method of calculation shall not be subject to arbitrary change.

An undertaking shall keep and, when requested by the National Bank of Serbia, submit all data, information, assumptions, methods, documents, procedures and other acts used in calculation of technical provisions, the results of comparison against experience referred to in Section 8 of this Decision, together with the relevant information about such comparison, and the results of verification of adequacy referred to in Section 9 of this Decision, together with the relevant information about such verification, that are needed for insurance supervision.

## II. UNEARNED PREMIUM RESERVES

12. Unearned premium reserves shall be part of the premium which is used to cover the insurance liabilities arising in the following period. Unearned premium reserves shall be formed by transferring pertinent amounts from total insurance premium at the end of the current period, separately for each insurance contract.

13. The basis for calculation of unearned premium reserves shall be total insurance premium as defined by the contract.

14. Unearned premium reserves for contracts in which a uniform spread of risk through the policy period may be assumed shall be calculated individually for each contract pro rata temporis, applying the following formula:

$$UPR = P \times \frac{d}{D}.$$

Where:

- $UPR$  = unearned premium reserve of individual insurance,  
 $P$  = total premium of individual insurance,  
 $d$  = number of days of insurance duration after the expiry of the current period,  
 $D$  = total number of days of individual insurance.

15. In case of insurance contracts where the amount of coverage is subject to change during the insurance period, unearned premium reserves shall be calculated by applying the method referred to in Section 14 of this Decision in accordance with the change in the level of coverage during the insurance period.

For contracts referred to in paragraph 1 of this Section in which it may be assumed that the amount of insurance coverage changes linearly, unearned premium reserves shall be calculated by applying the method referred to in Section 14 of this Decision, according to the following formula:

$$UPR = P \times \frac{d}{D^2} \times \frac{2O_k \times D - d \times (O_k - O_p)}{O_k + O_p}.$$

Where:

- $UPR$  = unearned premium reserve of individual insurance,  
 $P$  = total premium of individual insurance,  
 $d$  = number of days of insurance duration after the expiry of the current period,  
 $D$  = total number of days of individual insurance,  
 $O_p$  = insurance coverage at the beginning of insurance period,  
 $O_k$  = insurance coverage at the end of insurance period.

For contracts referred to in paragraph 1 of this Section in which the amount of insurance coverage cannot be assumed to change linearly, the formula different from the one referred to in this Section may be applied in calculation of unearned premium reserves, subject to the opinion of a certified actuary.

16. Total unearned premium reserves for all contracts within a specific homogenous risk group shall be the sum of unearned premium reserves under individual contracts.

17. By way of derogation and subject to the opinion of a certified actuary, an undertaking may use statistical methods (pro rata and lump sum basis) in calculating unearned premium reserves if the results approximate those obtained in individual per contract calculations.

If methods referred to in paragraph 1 hereof are applied, a certified actuary's opinion shall state all the assumptions used and the rationale behind the application of the method from that paragraph.

18. For contracts subject to calculation of mathematical reserves, unearned premium reserves shall constitute an integral part of mathematical reserves.

19. Unearned premium reserves in self-retention of an insurance undertaking shall be the sum of unearned premium reserves from the undertaking's own portfolio and unearned premium reserves from accepted coinsurance minus the sum of unearned premium reserves transferred to coinsurance and reinsurance.

20. Unearned premium reserves in self-retention of a reinsurance undertaking shall be calculated as a difference between unearned premium reserves for active conduct of a reinsurance business (for risks assumed from insurers or other reinsurers) and unearned premium reserves for passive conduct of reinsurance business (for risks ceded to other reinsurers).

### III. UNEXPIRED RISK RESERVES

21. Unexpired risk reserves shall be determined as the amount in excess of unearned premium reserves to cover insurance liabilities arising in the following period in connection with insurance contracts in force during the current period.

22. An undertaking shall form unexpired risk reserves if it has established that the expected amount of claims and expenses in the following period in connection with the insurance contracts in force during the current period exceeds the amount of unearned premium reserves and any premium receivables under insurance contracts in force during the current period.

23. Premium receivables referred to in Section 22 of this Decision shall mean future premiums specified by the contract which may reasonably be expected in the future period but are not included in the calculation of unearned premium reserves.

24. An undertaking shall set up procedures to ensure a reliable assessment of expected claims and expenses in the future period arising from contracts in force during the current period, taking into account the

opinion of a certified actuary on the assumptions used to establish the expected amount of claims and expenses in the future period arising from contracts in force during the current period.

25. For contracts in which it may be assumed that the combined ratio represents an adequate approximation of expected claims and expenses in the future period arising from contracts in force during the current period, if premium receivables under contracts in force during the current period are not materially significant, the unexpired risk reserves may be calculated by applying the following formula:

$$URR = \max(CR - 1; 0) \times UPR .$$

Where:

*URR* = unexpired risk reserves,

*CR* = combined ratio,

*UPR* = unearned premium reserves.

26. The combined ratio shall be the sum of the claims ratio and the expense ratio.

The claims ratio shall be the ratio of claims payable to premium earned.

The expense ratio shall be the ratio of insurance administration expenses to premium earned.

Premium earned shall be the total premium in the current period increased by the unearned premium reserves at the end of the previous year and reduced by the unearned premium reserves at the end of the current period.

Claims of the period are total claims settled in the current period reduced by total outstanding claims reserves at the end of the previous year and increased by the total outstanding claims reserves at the end of the current period.

Insurance administration expenses of the period shall be the sum of expenses of insurance acquisition, management and other insurance administration expenses pertaining to the current period and homogenous risk group.

27. Unexpired risk reserves shall not be formed for contracts subject to calculation of mathematical reserve.

28. Unexpired risk reserves of a reinsurance undertaking shall be calculated for active conduct of a reinsurance business.

#### IV. RESERVES FOR BONUSES AND REBATES

29. Reserves for bonuses and rebates shall be determined as the amount the insured and insurance beneficiaries are entitled to through:

- 1) share in profit,
- 2) future partial reduction of premium,
- 3) partial refund of premium.

30. Reserves for bonuses and rebates shall comprise the amounts determined in the current period payable to the insured and insurance beneficiaries, and/or reserved on their behalf.

Reserves for bonuses and rebates shall also comprise the amounts which are used to increase technical reserves and reduce premium, minus reserves for bonuses and rebates from previous years which are no longer needed.

Reserves for bonuses and rebates shall also comprise amounts of partial refund of premium that apply to the unused portion of the insurance period in case of early contract termination.

31. For contracts subject to calculation of mathematical reserves, reserves for bonuses and rebates shall constitute an integral part of mathematical reserves.

#### V. OUTSTANDING CLAIMS RESERVES

32. Outstanding claims reserves shall be determined as the estimated amount of liabilities for incurred but unsettled claims in the current period.

An undertaking shall ensure sufficient amount of funds to meet the liabilities for incurred but unsettled claims by the period end.

33. Outstanding claims reserves shall be:

- 1) reserves for incurred reported but unsettled claims by the end of the current period,
- 2) reserves for claims incurred but unreported by the end of the current period,
- 3) reserves for underreported, and/or underreserved claims,
- 4) reserves for claims that may be reactivated in the future period,

5) reserves for expenses related to claims settlement and payment.

Outstanding claims reserves referred to in paragraph 1, provisions 2) to 4) of this Section shall be considered reserves for incurred but unreported claims and shall be disclosed on an aggregate basis.

34. Reserves for claims reported but unsettled by the end of the current period shall be calculated based on the individual assessment of each claim.

Reserves for claims reported but unsettled shall be determined based on the contract obligations, norms pertaining to service provision in the claim appraisal procedure, the value of material and services, findings and opinion of court experts, appraisers, actuaries and other professionals and other relevant information.

In determining the amount of reserves for reported but unsettled claims, the obligations of an undertaking mandated by the law as well as court practice shall be taken into account.

35. In determining the reserves for reported but unsettled claims an undertaking may use, subject to the opinion of a certified actuary, statistical (lump sum) methods, if they correspond to risk features in the homogenous risk group, and/or in case of a significant number of claims whose amounts do not extremely differ.

Reserves for reported but unsettled claims in a regular procedure (not disputed), where a legal basis has been established but not all the necessary evidence has been acquired to calculate the reserve amount, shall be determined at least in the amount of average claims settled in the current year in the homogenous risk group to which such claim belongs.

If methods referred to in paragraph 1 hereof are applied, a certified actuary's opinion shall state all the assumptions used and the rationale behind the application of the method from that paragraph.

36. Reserves for reported but unsettled claims shall also include reserves for annuity claims in respect of liabilities paid out in the form of annuities.

Reserves for annuity claims referred to in paragraph 1 of this Section shall be determined in capitalised amounts as the present value of future annuities, taking into account also the expected increase in such annuities.

Reserves for annuity claims referred to in paragraph 1 of this Section shall be determined for individual claims, by applying probability tables pursuant to Section 63 of this Decision and the annual interest rate not above



5% for annuity claims denominated in dinars, and/or 2.25% for annuity claims denominated in foreign currency.

37. Reserves for incurred but unreported claims shall be determined taking into account previous experience regarding the number and amount of claims and the time interval until the reporting and settlement of claims depending on the features of the homogenous risk group and available data.

Reserves for incurred but unreported claims may be calculated, subject to the opinion of a certified actuary, by applying the following actuarial methods, or their combination:

- 1) lump sum method,
- 2) chain ladder,
- 3) Bornhuetter–Ferguson method,
- 4) expected claims quota,
- 5) other recognised actuarial methods.

The certified actuary's opinion referred to in paragraph 2 hereof shall state all the assumptions used and the rationale behind the application of the method from that paragraph.

Data on claims used to calculate reserves for incurred but unreported claims shall not contain data on expenses related to settlement and payout of claims.

38. In the annual calculation of reserves for incurred but unreported claims under a lump sum method the following formula shall be used:

$$IBNR_t = a_t \times (S_t + RBNS_t).$$

Where:

$IBNR_t$  = reserves for incurred but unreported claims,

$a_t$  = coefficient for calculation of reserves for incurred but unreported claims,

$S_t$  = amount of claims settled (except annuity claims) in the current year,

$RBNS_t$  = amount of reserves for reported but unsettled claims (except annuity claims) on the date of calculation.

Coefficient  $a_t$  shall be determined as the arithmetic mean of  $k_i$  coefficients over the last three years (including the current year).

The  $k_i$  coefficient for each of the preceding three years shall be derived as the quotient of the sum total of amounts of claims settled during

the year and outstanding claims reported but not settled as at 31 December, which had been incurred in the preceding period and reported for the first time in the year for which such coefficient is calculated, and the sum total of amounts of claims settled during the year and outstanding claims reported but not settled as at 31 December of the year for which such coefficient is calculated.

The value of  $a_t$  coefficient shall be 0.1 on 31 December in the first year of operation, and/or shall be calculated as the arithmetic mean of  $k_i$  coefficients for the preceding two years, including the current year, on 31 December of the second year of operation.

In case where  $a_t$  coefficient is lower than 0.1, coefficient  $a_t = 0.1$  shall be used in calculating reserves for incurred but unreported claims.

39. During the year, reserves for incurred but unreported claims, under a lump sum method, shall be calculated by multiplying coefficient  $a_t$  referred to in Section 38 of this Decision established on 31 December of the prior year by the sum total of amounts of claims settled (except annuity claims) in the last twelve months and reserves for reported but unresolved claims (except annuity claims) as at the calculation date.

The calculation referred to in paragraph 1 of this Section shall not be applied in the calendar year in which the undertaking started to operate within the homogenous risk group.

40. Reserves for incurred but unreported claims during the year may not be lower than reserves for incurred but unreported claims at the end of the previous year.

41. The calculation of reserves for incurred but unreported claims for motor vehicle liability insurance shall not be based on a lump sum method.

42. The calculation of reserves for incurred but unreported claims shall not be performed for contracts subject to calculation of mathematical reserve.

43. Outstanding claims reserves shall also include reserves for expenses related to claims settlement and payment.

Expenses related to claims settlement and payment shall mean expenses of investigation, appraisal and payment of claims, expenses of enforcing recourse claims, court expenses and taxes in disputes, expert assessment expenses and other expenses.

Reserves for expenses related to settlement and payment of claims shall be determined by applying the lump sum method and other recognised actuarial methods, subject to the certified actuary's opinion stating all the assumptions used and the rationale behind the application of the method from this paragraph.

The calculation of reserves for expenses related to settlement and payment of claims under the lump sum method shall be based on the following formula:

$$ULAE_t = \frac{T_{Ut}}{S_{Ut}} \times (RBNS_{Ut} + IBNR_{Ut}).$$

Where:

$ULAE_t$  = Reserves for expenses related to claims settlement and payment at the end of the current period,

$T_{Ut}$  = expenses incurred in relation to settlement and payment of claims in the current period,

$S_{Ut}$  = total amount of settled claims of the current period,

$RBNS_{Ut}$  = amount of total reserves for reported but unsettled claims at the end of the current period,

$IBNR_{Ut}$  = amount of total reserves for incurred but unreported claims at the end of the current period.

In determining reserves for expenses related to settlement and payment of claims annuity claims shall also be taken into account.

Reserves for expenses related to settlement and payment of claims shall be disclosed separately for reported but unsettled claims and separately for other unreported claims.

44. Depending on the manner of calculation of outstanding claims reserves, an undertaking may reduce the settled claims used in such calculation by the amount of recourse claims paid, subject to the certified actuary's opinion stating all the assumptions used and the rationale confirming the adequacy of application of the said reduction.

An undertaking applying the reduction referred to in paragraph 1 of this Section shall disclose the amount of such reduction in notes to its financial statements.

45. In determining outstanding claims reserves, an undertaking may apply explicit discounting or reduction of outstanding claims reserves so that the income from investment of outstanding claims reserves is taken into account, provided the following conditions are met:

- 1) The expected average time for claim settlement is minimum four years after the date of calculation of outstanding claims reserves;
- 2) The discounting is performed prudently, applying a recognised actuarial method and subject to a certified actuary's opinion stating all the assumptions used and the rationale behind the application of such method;
- 3) In determining costs of settlement and payment of claims all factors that may increase such costs are taken into account;
- 4) Available data are reliable and sufficient to establish a reliable claim frequency model;
- 5) Interest rate applied in determining the present value is not higher than the prudent estimation of the rate of return on the outstanding claims reserves in the period until the payment of the said claims.

The annual interest rate used in discounting referred to in paragraph 1 of this Section shall be the lowest of the following rates:

- 1) average rate of return on outstanding claims reserves in the previous five years,
- 2) rate of return on outstanding claims reserves in the previous year,
- 3) interest rate of 5%.

An undertaking applying discounting referred to in paragraph 1 of this Section shall disclose, in notes to financial statements, the amount of outstanding claims reserves prior to discounting, categories of claims discounted, methods used in discounting, the interest rate applied, data referred to in paragraph 2 of this Section, factors that may increase the expenses related to claims settlement and payment and the methodology for determining the expected average claim settlement date.

In determining outstanding claims reserves, an undertaking may not perform implicit discounting or reduction of outstanding claims reserves, i.e. implicitly determine the present value of an outstanding claim reserve which is expected to be settled at a higher amount and/or in some other manner in future.

46. Outstanding claims reserves in self-retention of an insurance undertaking shall be calculated as the sum of outstanding claims reserves in own portfolio and outstanding claims reserves under accepted coinsurance reduced by the sum of outstanding claims reserves transferred to coinsurance and reinsurance.

47. Outstanding claims reserves in self-retention of a reinsurance undertaking shall be calculated as a difference between outstanding claims

reserves for active conduct of a reinsurance business and outstanding claims reserves for passive conduct of a reinsurance business.

## VI. MATHEMATICAL RESERVES

48. Mathematical reserves shall be constituted for settling the present value of future liabilities under life insurance contracts and under long-term non-life insurance contracts where savings and funds for risk coverage in later years are being accumulated and to which probability tables and calculations used in life insurance are applied.

49. As a rule, mathematical reserves shall be calculated by a well thought out prospective method recognized by the actuarial profession – as the difference between the present value of future liabilities of an undertaking determined by the insurance contract and the present value of future premium payments.

Liabilities referred to in paragraph 1 of this Section shall include:

- 1) all guaranteed benefits to policyholders, the insured and insurance beneficiaries, including the guaranteed surrender value;
- 2) profit share to which policyholders, the insured and insurance beneficiaries are entitled, individually or collectively, at the moment of calculation, regardless of how profit share is defined and whether the amount of profit share is guaranteed.
- 3) all options at disposal of policyholders, the insured and insurance beneficiaries, according to policy conditions;
- 4) insurance administration expenses.

The method of calculation of mathematical reserves referred to in paragraph 1 of this Section shall also include the possibility of unfavourable deviation of relevant factors which are used in determining mathematical reserves.

The method of calculation of mathematical reserves referred to in paragraph 1 of this Section must in itself be prudent, and must also take into account the valuation of mathematical reserves.

50. Mathematical reserves shall be calculated individually for each contract, while an additional mathematical reserve may also be formed for risks pertaining to a group of insured or all of the insured (general risks that are not individualised).

51. In calculating mathematical reserves, an undertaking may use, subject to the opinion of a certified actuary, statistical methods and approximations, if

approximately the same results are obtained as in individual per contract calculations.

If statistical methods and approximations referred in paragraph 1 of this Section are applied, a certified actuary's opinion shall state all the assumptions used and the rationale behind the application of such methods and approximations.

An undertaking applying statistical methods and approximations referred to in paragraph 1 of this Section shall state, in notes to financial statements, the assumptions used in the calculation of mathematical reserves.

52. Mathematical reserves for group insurance, i.e. group of policyholders, the insured and insurance beneficiaries may not be lower than the amount determined based on the assumptions that are not changed after contract inception and the assumptions that do not deviate from the experience during the term of the contract.

Mathematical reserves for group insurance must be covered by sources of funding and mathematical reserves for the respective group insurance only, including all guaranteed rights of policyholders, the insured and insurance beneficiaries.

An undertaking shall determine mathematical reserves for group insurance by the actual sex and age of the insured and, exceptionally, it may use an approximation of the said factors, subject to the opinion of a certified actuary.

When applying approximations referred to in paragraph 3 of this Section in calculation of mathematical reserves, the certified actuary's opinion shall state all the assumptions used, with the rationale for applying such approximations.

53. If the surrender value of the contract is guaranteed, the amount of mathematical reserves must not be lower than such value.

54. An undertaking shall determine the interest rate used in calculation of mathematical reserves prudently and in the amount ensuring the certainty of payment of agreed benefit to policyholders, the insured and insurance beneficiaries, taking into account the certainty of recovery of mathematical reserves and the amount of yield generated on that account.

55. For contracts agreed in foreign currency and contracts with the currency clause, the annual interest rate used in calculation of mathematical reserves may not be higher than:

- 1) 3% – for contracts concluded until 31 July 2017;
- 2) 2.25% – for contracts concluded as of 1 August 2017 and on later dates.

In interest rate setting, currencies of the contract and yield on government securities denominated in such currencies shall be taken into account.

56. An undertaking shall determine additional mathematical reserves to cover the liabilities toward policyholders, the insured and insurance beneficiaries based on the agreed guaranteed interest rate, if the current or expected yield on mathematical reserves is insufficient to cover such liabilities.

57. Statistical factors applied in the calculation, as well as the share of expenses in mathematical reserves shall be determined prudently, taking into account contract liabilities, expenses and the homogenous risk group.

58. For contracts envisaging profit sharing, in determining mathematical reserve, all future bonuses shall be taken into account implicitly or explicitly, in accordance with the assumptions about future experience and method of determining the entitlement of policyholders, the insured and insurance beneficiaries to profit share.

59. The share of future expenses may be determined explicitly or implicitly.

The share of future expenses may be implicitly determined based on future premium reduced for management expenses.

The share of future expenses may not be lower than the prudent assessment of expected future expenses.

60. The manner of calculation of mathematical reserves may not be changed as a result of arbitrary change of methods and mathematical basis of the calculation and should ensure that the profit share of policyholders, the insured and insurance beneficiaries is adequately taken into account in calculation of mathematical reserves through the term of the contract.

61. In determining mathematical reserves, premium for new insurance products must, based on prudent actuarial assumptions, be sufficient to meet all liabilities under the contracts.

62. In calculating a decrease in mathematical reserves for unamortised real expense of contract conclusion fee, the Zillmer adjustment shall be used, whereas the zilmerisation in such case shall not exceed 3.5% of the agreed insured sum.

If the fee referred to in paragraph 1 of this Section is paid over a period longer than one year, mathematical reserves calculated by Zillmer adjustment may not be lower than the amount which ensures the payment of the insured sum agreed.

In the calculation within the meaning of paragraph 1 of this Section, the zilmerisation referred to in that paragraph shall be applied to each contract, throughout the insurance period.

An undertaking applying a Zillmer adjustment in the calculation of mathematical reserves shall state, in notes to its financial statements, the amount of mathematical reserves calculated by Zillmer adjustment, the amount of mathematical reserves calculated according to net method and the difference between the two, by insurance product.

63. Probability tables applied in calculation of mathematical reserves (mortality tables, sickness tables and other probability tables) shall be selected prudently and developed based on tables and other statistical data published by the competent authority in the Republic of Serbia.

The probability tables referred to in paragraph 1 of this Section shall mean the latest probability tables published by the competent authority in the Republic of Serbia, except that in the period until sickness tables and other probability tables are published, the reinsurer's sickness tables and other probability tables may be used, based on the opinion of a certified actuary.

In cases where the increase in risk is established, an undertaking may also use other probability tables, subject to a certified actuary's opinion, provided that the application of such tables ensures the protection of interests of policyholders, the insured and insurance beneficiaries, and the fulfilment of insurance contract liabilities.

A certified actuary's opinion referred to in paragraphs 2 and 3 of this Section shall state all the assumptions used and the rationale on whether the amount of mathematical reserves calculated by application of probability tables guarantees the fulfilment of all liabilities under the concluded contracts.



64. The interest rate and probability tables applied in calculation of mathematical reserves must be the same as the interest rate and probability tables specified in the undertaking's tariff system based on which the insurance contract was concluded.

65. If a negative result is obtained in calculation of mathematical reserves, mathematical reserves shall be equal to zero.

66. On the date of calculation, mathematical reserves shall be linearly interpolated from the mathematical reserves calculated at the start and at the end of the current insurance year. The amount obtained shall not be adjusted by the amount of premium prepayment or arrears as at the calculation date.

67. Mathematical reserves for foreign currency-denominated insurance contracts shall be calculated for each currency separately and shown in both foreign currency and dinars, applying the official middle rate of exchange of the dinar as at the date of mathematical reserves calculation.

68. An undertaking shall provide to all interested parties the data about the relevant elements of methods and mathematical basis used in calculation of mathematical reserves and profit-sharing bonus.

69. An insurance undertaking shall calculate mathematical reserves in self-retention as a sum of mathematical reserves of own insurance portfolio and mathematical reserves against accepted coinsurance minus the sum of mathematical reserves transferred to coinsurance and reinsurance.

70. A reinsurance undertaking shall calculate mathematical reserves in self-retention as a difference between mathematical reserves for active conduct of a reinsurance business and mathematical reserves for passive conduct of a reinsurance business.

## VII. RESERVE IN INSURANCE WHERE THE INSURED SHARES IN THE INVESTMENT RISK

71. In case of insurance where the insured shares in the investment risk, reserves shall be determined in the amount to which the insured and insurance beneficiaries are entitled, and which is directly linked to the value of investment.

72. For benefits specified in contracts directly linked to the value of investment fund units, the reserves in insurance where the insured share in the investment risk shall be determined in such a way to reflect the value of such units as accurately as possible.

73. In case of insurance where the insured shares in the investment risk, the amount of reserves shall be determined by multiplying the number of units awarded to the insurance contract and the respective unit value.

74. In case of insurance where the insured shares in the investment risk, if the contract guarantees a certain right of the insured and insurance beneficiaries (e.g. guaranteed amount of payment in case of death, guaranteed amount of payment in case of survivorship, guaranteed surrender value, guaranteed yield, fixed management expenses etc.) – separate mathematical reserves shall be determined for settlement of liability stemming from such right.

75. Provisions from chapter VI of this Decision shall accordingly apply to the calculation of separate mathematical reserves referred to in Section 74 hereof.

76. Provisions from this chapter shall accordingly apply to technical provisions for the coverage of liabilities toward the insured and tontine beneficiaries.

## VIII. RISK EQUALISATION RESERVES

77. The risk equalisation reserves shall be used for temporal equalisation of the course of claims in certain classes of non-life insurance.

78. An undertaking shall determine risk equalisation reserves for the type of credit insurance.

An undertaking may also determine risk equalisation reserves for other classes of non-life insurance which the undertaking has specified in the rules governing the calculation and determining of risk equalisation reserves.

79. Risk equalisation reserves shall be calculated on an annual basis and the calculated amount of reserves shall be disclosed in calculations performed throughout the year and on the date of the portfolio transfer.

Risk equalisation reserves shall be increased in the annual calculation if a positive net business result has been recorded in a class of insurance.

Risk equalisation reserves shall be increased by 75% of the positive net business result in a class of insurance, but not more than by 12% of the self-retained premium, until risk equalisation reserves reach the upper threshold referred to in Section 84 of this Decision.

80. Risk equalisation reserves shall be decreased in the annual calculation if a negative net business result is recorded in a class of insurance.

Risk equalisation reserves shall be reduced by the total amount of a negative net business result in a class of insurance, but the reduction may not exceed the amount of risk equalisation reserves in that class of insurance in the previous year.

81. Net business result within the meaning of this Decision shall be the net business result determined by applying accordingly the regulations governing the contents of financial statement forms of insurance undertakings excluding risk equalisation reserves.

82. An insurance undertaking shall calculate the annual self-retained premium as a sum of annual premium of own insurance portfolio and annual premium of accepted coinsurance minus the sum of annual premium transferred to coinsurance and reinsurance.

83. Annual self-retained premium of a reinsurance undertaking shall be calculated as a difference between the annual premium for active conduct of a reinsurance business and annual premium for passive conduct of a reinsurance business.

84. The upper threshold of risk equalisation reserves shall be 150% of the maximum annual self-retained premium in a type of insurance over the last five years (including the year for which the calculation is performed).

## IX. OTHER TECHNICAL PROVISIONS

85. An undertaking may also determine other technical provisions for expected future liabilities and risks that are not covered by any of the technical provisions stipulated in this Decision.

86. Other technical provisions may be determined for claims arising from atomic energy liability insurance, medical liability insurance, earthquake insurance, flood insurance etc.

87. An undertaking determining other technical provisions shall regulate by rules the types of technical provisions to be determined, as well as the criteria, manner and deadlines for their calculation and determining.

88. An undertaking shall calculate other technical provisions by applying recognised actuarial methods, subject to a certified actuary's opinion.

The certified actuary's opinion referred to in paragraph 1 of this Section shall state all the assumptions used and the rationale on whether the amount of other technical provisions provides coverage for expected future liabilities and risks for which technical provisions other than the ones stipulated in this Decision are formed.

89. Other technical provisions of a reinsurance undertaking shall be determined by applying accordingly the provisions from this chapter of the Decision.

## XI. TRANSITIONAL AND FINAL PROVISIONS

90. An undertaking shall apply the provisions of this Decision in disclosing technical provisions in its financial statements and annual report as at 31 December 2015.

An undertaking shall calculate technical provisions on 30 June and 30 September 2015 pursuant to the regulations that were in force until the effective date of this Decision.

91. As of the effective date of this Decision, the Decision on Specific Criteria and the Manner of Calculating Unearned Premiums (RS Official Gazette No 19/2005), Decision on Detailed Criteria and Manner of Calculating Outstanding Claims (RS Official Gazette No 86/2007), Decision on Specific Criteria and the Manner of Calculating Mathematical Reserves and Profit Share Reserves (RS Official Gazette Nos 7/2010, 93/2011 and 87/2012) and Decision on Detailed Criteria and the Manner of Calculation of Equalization Reserves shall cease to be valid (RS Official Gazette Nos 13/2005 and 23/2006).

92. This Decision shall be published in the RS Official Gazette and enter into force on 27 June 2015.

NBS Executive Board No 34  
11 May 2015

B e l g r a d e

Chairperson  
Executive Board of the National Bank of  
Serbia  
at the meeting of 11 May 2015  
Vice-Governor  
of the National Bank of Serbia

Veselin Pješčić