

## **ORDINANCE No. 27**

**of 29 March, 2006 on the procedure and methodology of formation of the technical reserves by insurers and reinsurers, and of the health insurance reserves (Title suppl. – SG, iss. 3 in 2008)**

*Adopted by Decision No. 55-H from 29 March, 2006 of the Financial Supervision Commission, prom. SG iss. 36 from 2 May, 2006, am. and suppl. iss. 65 from 10 August, 2007; iss. 3 from 11 Jan., 2008; iss. 49 from 29 June, 2010; iss. 89 from 12 Nov., 2010*

### **Section I**

#### **General Provisions**

**Art. 1.** (Suppl. iss. 3 in 2008) This Ordinance regulates the procedure and methodology for formation of the technical reserves of insurers and reinsurers, and the health insurance reserves, hereinafter referred to as “technical reserves”, the principles that will apply for the calculation of their amount, as well as the maximum size of the technical interest rate for the insurances under Section I of Annex No. 1 to the Insurance Code.

**Art. 2.** The amount of the technical reserves shall be calculated on the basis of the amount of the undertaken by the insurer, reinsurer or the health insurance company, hereinafter referred to as the “companies”, commitments which are expected to be fulfilled in future under effectuated insurance, reinsurance and health insurance contracts, the expenses related to the fulfillment of these commitments, as well as the amount of the possible unfavorable deviation from that expectation.

**Art. 3.** (1) The Company shall form the technical reserves according the methods, laid down in the Ordinance or according other methods which have been prescribed or approved by the Deputy Chairperson of the Financial Supervision Commission in charge of Insurance Supervision Division, hereinafter referred to as the “Deputy Chairperson”. The methods used for formation of the technical reserves shall be described in the annual actuarial report, filed with the Financial Supervision Commission, hereinafter referred to as the “Commission”.

(2) The method adopted under para 1 may be changed subject to preliminary approval by the Deputy Chairperson.

**Art. 4** (1) An insurer which has been granted a license to pursue insurance of the types of insurances under Section I of Annex No. 1 to the Insurance Code shall form technical reserves as follows:

1. equalization reserve;
2. outstanding claims reserve;
3. unearned premium reserve (UPR);
4. mathematical reserves;
5. capitalized value of pensions;
6. premium reserves carried forward;
7. unit-linked life insurance reserve;
8. bonus and discount reserve;

9. other reserves approved by the Deputy Chairperson, or formed according his/her prescription.

(2) An insurer, having been granted a license to pursue insurance by types of insurances under Section II of Annex No. 1 to the Insurance Code, shall form technical reserves as follows:

1. equalization reserve;
2. outstanding claims reserve;
3. unearned premium reserve (UPR);
4. unexpired risk reserve;
5. bonus and discount reserve;
6. other reserves approved by the Deputy Chairperson, or formed according his/her prescription.

(3) (New – SG, iss. 3 in 2008) A reinsurer shall form technical reserves according para 1 in relation to its activity under Section I, Annex 1 of the Insurance Code and the reserves according para 2 in relation to its activity under Section II, Annex 1 of the Insurance Code.

(4) (Prev. para 3 – SG, iss. 3 in 2008) A health insurance company shall form technical reserves as follows:

1. equalization reserve;
2. outstanding claims reserve;
3. unearned premium reserve (UPR);
4. unexpired risk reserve;
5. bonus and discount reserve;
6. other reserves approved by the Deputy Chairperson, or formed according his/her prescription.

(5) (Prev. para 4, am. – SG, iss. 3 in 2008) The Deputy Chairperson shall give prescription about the setting up of other reserves under para 1 item 9, para 2 item 6, under para 3 in relation to para 1 item 9 and para 2 item 6 and under para 4 item 6, whenever he/she decides that the expected amount of the company's liabilities, the expenses connected with such liabilities, or the possible unfavorable deviation from that expectation cannot be met with the formed technical reserves and that this may jeopardize the integrity of the company or the interests of the insured, the socially secured persons or of the third-party beneficiaries, or the fulfillment of the commitments arising from reinsurance contracts.

(6) (Prev. para 5, am. – SG, iss. 3 in 2008) Where the company requests approval for the setting up of other reserves according para 1 item 9, para 2 item 6, under para 3 in relation to para 1 item 9 and para 2 item 6 and under para 4 item 6, it shall file with the Commission a reasoned application containing a rationale for the need of formation of the respective reserve, description of the method of calculation, accounts for the amount of the reserve for the relevant period and data about the revenue source for its formation, as well as the designation and the ways of the reserve spending.

**Art. 5.** (1) The technical reserves of the insurers shall be calculated by each type of insurance for which it has been granted a license, the reinsurers' share not being deducted.

(2) (New – SG, iss. 3 in 2008) The technical reserves of the reinsurers shall be calculated by each type of insurance that is pursued, the share of retrocessionaires not being deducted.

(3) (Prev. para 2, am. – SG, iss. 3 in 2008) The health insurance reserves shall be calculated for each health insurance package, in relation to which a license is granted to pursue health insurance activity. Where health services and commodities are offered which are a combination of several packages, the health insurance reserves shall be formed and accounted by health insurance packages.

## **Section II**

### **Technical Reserves and Methodology of their Formation**

**Art. 6.** (1) The equalization reserve is formed to cover expected unfavorable deviations in the payments of the company in relation to the offered by it insurances or health insurance packages.

(2) The equalization reserve is formed by the application of statistical methods in amount that ensures equalization of the future fluctuations in the net damage quota of the respective type of insurance or health insurance package.

(3) If the company does not set up an equalization reserve for given type of insurance or health insurance package, it shall include a reasoned rationale for that decision in the annual actuarial report.

(4) Wherever estimating that the fluctuations in the damage quota of a given type of insurance or a health insurance package, or of the portfolio as a whole, cannot be covered by the formed by the company technical reserves and that this jeopardizes its financial stability, the Deputy Chairperson shall give directions for the setting up of an equalization reserve or for the increase of its amount.

(5) The funds from the equalization reserve shall be used in the cases where the result under Appendix No. 1, method No. 1, item 3 for certain types of insurance or health insurance packages is negative, or after an approval by the Deputy Chairperson. The release of an equalization reserve for one type of insurance or a health insurance package with the purpose of covering the negative result of another type shall be done after an approval by the Deputy Chairperson. In order to obtain such approval, the company shall file with the Commission a well-reasoned rationale, containing analysis of the deviations from the average net damage quota, examined for a period not less than 5 years.

(6) The equalization reserve in relation to credit insurance shall be formed in accordance with Appendix No. 1.

**Art. 7.** (1) (Suppl. – SG, iss. 3 in 2008) The outstanding claims reserve shall be formed to cover indemnities, amounts and other payments pursuant to insurance, reinsurance or health insurance contracts, as well as related expenses, concerning claims incurred before the end of the reporting period, regardless whether submitted or not, and which are not paid at the same date. The reserve must account for all known factors and circumstances which influence the final amount of the payments.

(2) The outstanding claims reserve shall include:

1. submitted but unpaid claims;
2. incurred but unsubmitted claims;
3. the expenses for the claims settlement.

(3) No hidden discounting or reductions shall be admitted as a result of determination of the present value of claims which are expected to be paid in future at higher amount, or otherwise realized.

(4) (Suppl. – SG, iss. 3 in 2008) The outstanding claims reserve formed by an insurer or reinsurer pursuing insurances under Section II of Annex No. 1 of the Insurance Code, or by a health insurance company, may be discounted after an approval by the Deputy Chairperson, when taking account of the expected income from investments and provided that the following conditions exist:

1. the expected average period for payment of the claims is at least 4 years after the end of the reporting period;

2. (Suppl. – SG, iss. 3 in 2008) the insurer, reinsurer or the health insurance company have sufficient representative and reliable data for the building up of a trustworthy model for the settlement of claims in time;

3. the used discount percentage may not be higher than one of the two values as follows:

a) the realized average annual yield on the assets for cover of the technical reserves for the past 5 years;

b) the realized annual yield on the assets for cover of the technical reserves in the preceding year.

**Art. 8.** (1) The amount of the reserve under Art. 7 para 2 item 1 shall be calculated by the method on claim by claim basis according which it shall include the expected amount of the payments for each submitted but unpaid claim.

(2) For calculation of the amount of the reserve under Art. 7 para 2 item 1, statistical methods may also be applied after approval by the Deputy Chairperson, if with their applying the amount of the reserve is at least equal to that, calculated according para 1.

(3) (Am. – SG, iss. 65 in 2007, suppl. iss. 3 in 2008) The claims under insurance, reinsurance or health assurance contracts, instituted through the court, on which the court has pronounced, shall be included in the reserve with the full amount of the honored claim, including for the adjudged interests and expenses.

(4) (New – SG, iss. 65 in 2007, suppl. iss. 3 in 2008) The claims under insurance, reinsurance or health assurance contracts, instituted through the court, of which the company has been notified and on which the court has not pronounced, or which were rejected at a preceding instance, before the decision to have come into effect, shall be included in the reserve, the price of the claims along with the due interest and the known legal costs shall be adjusted by a coefficient.

(5) (New – SG, iss. 65 in 2007) The coefficient according para 4 shall be calculated on annual basis on 31 December by each company, where its value may not be lower than the ratio between:

1. the total amount of the claims, honored with effectuated rulings, against the company and of the litigation settlements in the preceding three years (including for the principal, interest and expenses); and

2. the total amount of the submitted claims under the statements of claim on which the effectuated rulings under item 1 were pronounced and the litigation settlements reached.

(6) (New – SG, iss. 65 in 2007) The coefficient according para 4 shall be calculated by types of insurances. With regard to the insurances under Section II, letter A, item 10.1 of Annex 1 to the Insurance Code, separate calculations shall be made for material and non-material damages.

(7) (New – SG, iss. 65 in 2007) To the documents and within the deadlines under Art. 99 para 1 item 2 of the Insurance Code and under Art. 99l para 1 item 2 of the Health Insurance Act, the companies shall present the values of the used coefficients by types of insurances and statistics containing information about:

1. (Suppl. – SG, iss. 3 in 2008) the court rulings and litigation settlements on lawsuits related to insurance (reinsurance, health insurance) claims, effectuated within the three-years period before the date of the presentation of the statistics and the amount of the adjudicated or agreed sum (including for principal, interest and expenses) and

2. the statements of claim in relation to which the effectuated court rulings have been pronounced or the litigation settlements reached and the amount of the instituted claims (incl. for principal, interest and legal costs).

(8) (New – SG, iss. 65 in 2007) The coefficient shall apply for one fiscal year, being calculated for every next year on the basis of a preceding three-year period.

(9) (Prev. para 4 – SG, iss. 65 in 2007) The reserve according Art. 7 para 2 item 1 shall also include the unpaid liabilities with overdue maturity of insurances under Section I of Annex No. 1 to the Insurance Code.

**Art. 8a.** (New – SG, iss. 89 in 2010) (1) At the end of the current year the insurer shall carry out a test for adequacy of the reserve amount for submitted but unpaid claims under the insurances according to Section II of Annex No. 1 to the Insurance Code.

(2) Deficit of reserve for submitted but unpaid claims shall exist when the amount of the paid during the current year claims on events submitted before the beginning of the current year is higher than the part of the formed for these damages reserve for submitted but unpaid claims at the end of the preceding year.

(3) The results of the test under para 1 and the data on the basis of which the computation is made shall be presented at FSC together with the annual reports and statistics

(4) Where there was deficit of the formed reserve for submitted but unpaid claims at the end of the preceding year and the reserve amount was formed according to the method under Art. 8, para 1, the reserve amount for claims submitted before the end of the preceding year, which were not paid at the end of the current year or the end of each reporting period of the next year, shall be adjusted by a ratio of adequacy. The reserve adequacy ratio for submitted but unpaid claims is determined according to Annex No. 5, reducing with one the ratio between:

- a) the value of the paid during the current year claims for events, submitted before the end of the preceding year, and
- b) the part of the formed reserve for submitted but unpaid claims at the end of the preceding year, corresponding to the paid during the current year claims on events, submitted before the end of the preceding year.

(5) In making the computations under para 4:

1. the sums received from recourse claims and claims abandoned are included in the amount of the paid claims;
2. the reserve for submitted but unpaid claims includes the receivables from recourse claims and claims abandoned;
3. the reinsurer's share is included in the amount of the paid claims and the reserve for submitted but unpaid claims;
4. Where the paid claims and the formed reserve for submitted but unpaid claims are in currency other than BGN, in defining the coefficient under para 4, both values shall be recalculated with the exchange rate at the time of the claim's payment;
5. in case of partial payment of claims, in the numerator of the coefficient the claims shall participate with the amount of the sum paid in the current year, and the part of the formed for payments during the current year reserve for submitted but unpaid claims shall be included in the denominator.

(6) With regard to types of insurances with a small relative share in the company's portfolio, or with low frequency of the events and a number of the paid during the current year claims below 10% of the total number of the paid claims on all types of insurances for the same period, the coefficient under para 4 can be determined on the basis of data for the last three years according to Annex No. 5. Additional reserve is formed when the adequacy ratio of the reserve for submitted but unpaid claims, determined as the arithmetic mean of the ratios for the last 3 years, has value bigger than one.

(7) The amount of the additional reserve, formed according to Annex No. 5 shall be indicated in the balance sheet Section B Technical reserves, Item 9 Other technical reserves.

**Art. 9.** (1) The reserve according to Art. 7 para 2 item 2 shall include the amount of the unsubmitted claims on events which occurred before the end of the reporting period, as well as the amount of the claims which can be renewed.

(2) The reserve according to Art. 7 para 2 item 2 shall be calculated as follows:

1. by the method described in Appendix No. 2 – this method shall not apply to the insurances under Section II letter "A" item 10 – 13 of Annex No. 1 of the Insurance Code and to the insurances regarding which a substantial part of the incurred but unsubmitted claims are submitted with a delay of more than one year;

2. by the application of statistical methods, accounting for the tendencies in the claims development and their submission in time, the inflation, individual characteristics of the company's portfolio and other factors, while making assumptions to what extent the observed tendencies will have an impact on future developments; these methods shall be applied by companies which have enough representative and reliable statistics about the claims development under the relevant insurances;

3. in percent of the submitted claims, of the earned premiums or of the premium income for the period for which it is expected events to have occurred, that have not been announced; the rate of the percent for the relevant period shall be preliminarily approved by the Deputy Chairperson; this method shall be used by companies which do not have sufficient representative and reliable statistics on the claims development concerning the relevant insurances.

(3) In the approval of the percent according to para 2 item 3, the Deputy Chairperson shall take into account the tendencies observed on the market, in the claims development and their submission in the course of time with regard to the relevant insurances.

(4) Where for a given type of insurance, risks of different nature are covered, including material damages, non-material damages, benefits foregone, etc., the reserve under Art. 7 para 2 item 2 shall be calculated separately for the claims in relation to each of these risks. In such cases, in any of the reserve calculations, the company can apply different methods that are most appropriate with a view to determining the future liabilities of the company in relation to these claims.

(5) (Am. – SG, iss. 65 in 2007) The method of the reserve formation under Art. 7 para 2 item 2 at the fiscal year's end with regard to the insurances under Section II, letter "A" item 10.1 from Annex No. 1 to the Insurance Code is subject to preliminary approval by the Deputy Chairperson. In such case the insurers shall present annually, by January 31 of the next year, a reasoned request containing a detailed description of:

1. (Am. – SG, iss. 89 in 2010) the used method of calculation

The amount of the reserve is determined by several methods, one of which is chain-ladder method. The calculations on the basis of data about the paid claims and on the basis of data about the submitted claims shall be made separately.

The manner of determining the development ratio used in forecasting the expected amount of claims which will be submitted with delay, shall be described in detail and reasoned. The development ratios in the use of a chain-ladder method shall be determined by data of the insurer, by market data and by data of the insurer and market data, participating with different weight defined according to the extent of reliability of the insurer's data.

2. (Am. – SG, iss. 89 in 2010) the rationale for the selection of the indicated method;

The results of all used by the insurer methods for determining the reserve amount shall be described in detail, analyzed and compared.

The selection of a method for the reserve formation shall be made separately for claims in relation to material and non-material damages, and the results of the reserve amount according the selected methods shall be summed up.

In the selection of a method for the reserve formation, the insurer shall carry out a test for adequacy of its amount. The adequacy of the amount is proved by comparison with a benchmark or value set by the market. The result of the reserve amount for incurred but

unsubmitted claims at the yearend, determined by the selected by the insurer method, may not be lower than the market share of the insurer in the total for the market expected amount of the unsubmitted claims.

The total for the market expected amount of the unsubmitted claims at the yearend is determined by an order of the Deputy Chairperson on the basis of market data for a period of at least 10 years.

The market share of the insurer is determined on the basis of the number of the insured motor vehicles, weighted by the relative share of the amount of the total for the market expected sum of the unsubmitted claims for the respective year of event. The number of the insured motor vehicles for a given year of event shall be determined as the arithmetic mean of the number of motor vehicles under acting at the beginning, middle and end of each month contracts. The number of the insured motor vehicles after 2007 included, is determined by the Deputy Chairperson on the basis of data provided by the insurers at FSC on the ground of Art. 294 of the Insurance Code.

With a view to accounting for the portfolio's specifics, after submission of a reasoned rationale in the FSC, the insurers can correct their market share in the total for the market expected amount of the unsubmitted claims with the following coefficients:

a) a coefficient accounting for the average amount of the paid claims, determined as a ratio between the average amount of the paid by the insurer claims and the average amount of the paid claims generally for the market;

b) coefficient accounting for the average frequency of the events on which claims were paid off, determined as a ratio between the average frequency determined according data of the insurer and the average frequency determined according market data.

The coefficients of letter "a" and letter "b" are determined by separate years of event, where their value for each year of event may not be lower than 0.9 and higher than 1.1. The end value of the coefficients is determined as the amount for each year of event and is weighted by the relative share of the total for the market expected amount of unsubmitted claims for the respective year of event.

c) coefficient accounting for the duration or the weighted average time of the claims payment, determined as a ratio between the insurer's duration and the market duration. The duration is calculated on the basis of the amount of the paid claims for a period not shorter than 10 years, grouped by year of event and year of the claims submission. The duration is determined as a ratio between the amount of the paid claims weighted by the number of the years of delay in their payment and the total amount of the paid claims for the last 10 years. The amount of the paid claims, weighted by the number of the years of delay in their payment is determined as a sum of: the claims paid during the year of the event occurrence; the double amount of the paid claims one year after the year of the event occurring; the double amount of the paid claims one year after the year of the event occurrence; the triple amount of the paid claims two years after the year of the event occurrence; the quadruple amount of the paid claims three years after the year of the event occurrence; the quintuple amount of the paid claims four years after the year of the event occurrence; sixfold the amount of the paid claims five years after the year of the event occurrence; sevenfold the amount of the paid claims six years after the year of the event occurrence; eightfold the amount of the paid claims seven years after the year of the event occurrence; ninefold the amount of the paid claims eight years after the event occurrence and tenfold the amount of the paid claims nine years after the year of the event occurrence.

The coefficients shall be determined separately for claims in relation to material and non-material damages.



The end value of each of the coefficients may not be lower than 0.9 and higher than 1.1, and the cumulative impact of all used coefficients or their product may not be less than 0.8.

The value of the coefficients under letter “a”, “b” and “c” is determined by the Deputy Chairperson according data submitted by the insurers in the FSC.

For the reserve formation currently, during the year, the approved at the end of the preceding year method shall be applied, except in the cases when this method gives big deviations in the reserve amount. In such cases, after an approval by the Deputy Chairperson, the insurer may change the method, or not recalculate the reserve amount at the end of the relevant quarter.

The formed at the end of each quarter reserve amount cannot be lower than the amount at the end of the preceding year, except in case of significant reduction of the insurer’s markets share in the number of the insured motor vehicles.

3. (Am. – SG, iss. 89 in 2010) the statistical information on the basis of which the calculations were made

The insurer must have internal processes and procedures in place whereby to ensure appropriate, complete and reliable data, used in the calculation of the reserves according to Annex No. 6.

Correction of the data on the basis of which the reserve is determined is admitted only in regard to the amount of large damages, the value of which, with smaller in number submitted (paid) damages, leads to significant deviations in the reserve amount. In such case, data smoothing is carried out, the amount of the large damages above the set value being distributed in the different periods of the relevant year (quarter) in which the damage occurred, where the total amount of the submitted/ paid claims for the relevant year (quarter) of event remains unchanged.

If the insurer’s data do not satisfy the above requirements and are not with the necessary quality, so that appropriate actuarial methods and techniques can be applied in determination of the reserve value for incurred but unsubmitted claims, the insurer has to use market data and assessment approaches, based on market data.

For determination of the reserve amount, every insurer must have data including the following minimum format: date of event; date of the claim’s submission; date of the policy issuance; number of policy; number of the damage, type of the claim (incurred damages); claimed amount; changes in the amount of the reserve for submitted but unpaid claims and date of making the change; amount(s) of the paid damage; date(s) of payment/ denial.

The insurers shall submit at FSC in an electronic way, certified by an electronic signature data about the number and value of the submitted and paid claims at the end of each quarter by the 10<sup>th</sup> day of the next month in the form of a table according to Annex No. 5. FSC shall publish on its Internet site the aggregated market data about the number and value of the submitted and paid claims as from the end of the relevant quarter.

4. the rationale of the made expert assumptions and assessments, underlying the used method, including about the inflation rate, the model of future claims development on these insurances, the envisaged loading for risk of deviation from such assumptions, etc.

(6) If the company has not set up a reserve under Art. 7 para 2 item 2 for a certain type of insurance or a health assurance package, it shall include a reasoned rationale for that decision in the annual actuarial report.

**Art. 10.** The amount of the reserve according to Art. 7 para 2 item 3 shall be determined for each type of insurance or a health insurance package, including all expenses which are

foreseeable and which are related to payment of the indemnities, amounts and other charges under insurance or health insurance contracts in the following way:

1. expenses which may be charged to any claim shall be included at their forecast value for each claim;
2. expenses which cannot be charged to any specific claim shall be allocated by the types of insurances or health insurance packages on the basis of premium income, number or value of the claims.

**Art. 11.** (1) (Suppl. – SG, iss. 3 in 2008) The unearned premium reserve shall be formed to cover the claims and the administrative costs which are expected to arise under the relevant insurance, reinsurance or health insurance contract after the end of the reporting period.

(2) (Suppl. – SG, iss. 3 in 2008) The unearned premium reserve includes the part of the premium income under the contracts in force at the end of the reporting period, reduced with the acquisition costs, fees and deductions, laid down in the insurance technical plan, the reinsurer's technical plan or in the health insurance technical plan, hereinafter referred to as "technical plan", relating to the time between the end of the reporting period and the date on which the insurance, reinsurance or health insurance contract expires, or the next due date of the premium – for insurances under Section I of Annex No. 1 to the Insurance Code.

(3) (Suppl. – SG, iss. 3 in 2008) Where the recognition as an expense of the laid down in the technical plan acquisition costs, fees and deductions in funds is deferred for a next reporting period, the unearned premium reserve shall include the part of the premium income under the contracts in force at the end of the reporting period, relating to the time between the end of the reporting period and the date on which the term of validity of the insurance, reinsurance or health insurance contract expires, or the next due date - of insurances under Section I of Annex No. 1 of the Insurance Code.

(4) The basis for determination of the unearned premium reserve shall correspond to the basis for recognition of the unearned premium reserve in the annual report of the company.

(5) The amount of the unearned premium reserve shall be calculated by the method of prompt day, pursuant to which the part of the premium which is carried over for the next reporting period is determined according the date on which the contract comes into force and the date of expiration of its term. The premium is calculated by a deferral ratio obtained as a ratio between the number of days during which the contract will be in force in the next reporting period, divided by the term of the contract expressed in number of days.

(6) The amount of the unearned premium reserve may also be calculated by other methods, subject to approval by the Deputy Chairperson.

(7) Where the risk level during the period of validity of the contract is not equal and is expected to vary, adjustments shall be made of the unearned premium reserve so calculated, the premium allocation being made according the claims' distribution during the period of cover and the level of the expected risk during the future reporting periods.

(8) The unearned premium reserve shall be calculated in accordance with Art. 13 para 2 for health insurance contracts, under which:

1. the health insurance company offers guaranteed cover for more than one year;
2. morbidity tables were used when calculating the premiums;
3. the premium is flat for the whole term of the contract with increasing risk level, or the premium grows at slower rates than the increase of the risk level;
4. there is no possibility envisaged for increase of the premium or reduction of the payments.

(9) (New – SG, iss. 89 in 2010) The total amount of the administrative and acquisition costs laid down in the insurance technical plan for Third Party Liability insurance of motorists may not exceed 20% of the value of the insurance premium, reduced by all statutorily set fees, taxes and deductions.

**Art. 11a.** (New – SG, iss. 89 in 2010) (1) In regard to Third Party Liability insurance of motorists, an additional reserve shall be formed at the end of each quarter, in case that the amount of the unearned premium reserve for each insured motor vehicle at the end of the relevant reporting period is lower than the amount required as a minimum for cover of the risk for one insured motor vehicle and the estimated costs after the end of the reporting period.

(2) The reserve under para 1 shall be formed for all insured motor vehicles under effectuated insurance or reinsurance contracts concluded before the end of the reporting period, under which the whole due premium was paid, or the first installment thereof in case of deferred payment of the premium, and which cover the risk after the end of the reporting period, including also when the beginning of the risk cover starts after the end of the reporting period.

(3) The reserve amount shall be determined according to Annex No. 8, separately for each insured motor vehicle under para 2, as a difference between:

1. the sum of the minimum required amount for cover of the risk for the respective type of motor vehicle, multiplied by the deferral ratio, determined according to Art. 11 para 5 and the estimated costs after the end of the reporting period and
2. the formed unearned premium reserve under Art. 11.

(4) The minimum required amount for cover of the risk per one insured motor vehicle for contracts concluded in a certain quarter shall be determined as:

1. sum of the average for the market risk premium per one insured motor vehicle for the previous year with weight of 25% and the average for the market risk premium per one insured motor vehicle for the year preceding the previous year with weight 75% - for contracts concluded in the first quarter;

2. sum of the average for the market risk premium per one insured motor vehicle for the previous year with weight of 50% and the average for the market risk premium per one motor vehicle for the year preceding the previous year with weight 50% - for contracts concluded in the second quarter;

3. sum of the average for the market risk premium per one insured motor vehicle for the preceding year with weight 75% and the average for the market risk premium per one insured motor vehicle for the year preceding the previous year with weight 25% - for contracts concluded in the third quarter;

4. the average for the market risk premium per one insured motor vehicle for the previous year – for contracts concluded in the fourth quarter.

(5) The average for the market risk premium for one insured motor vehicle and the average risk premium by types of motor vehicles for a given year are determined by order of the Deputy Chairperson. The average for the market risk premium for one insured motor vehicle is determined on the basis of aggregated for the whole market data about the paid claims in connection with material and non-material damages, as a product of the average amount of the incurred claims and the frequency of the events for the relevant year. The average amount of the incurred claims is determined by dividing the total amount of the incurred claims by years of event, by the number of the incurred claims for the relevant year of event. The incurred claims include both the value of the paid claims, and the expected amount of the claims which will be paid after the moment of valuation by events from the relevant year, determined by the chain-ladder method on the basis of the accumulated value of the paid claims. The frequency of the events is determined as a ratio of the number of the incurred by years of event claims, divided by the number of the insured during the respective year motor vehicles.

(6) The estimated costs after the end of the reporting period are determined on the basis of the administrative costs made during the preceding one-year period on the type of insurance according to Annex No. 8. Where in the formation of the unearned premium reserve Art. 11 para 3 is applied, the value of the costs shall also include the amount of the acquisition costs, fees and deductions underlying the technical plan.

(7) The reserve amount shall be stated in the balance sheet in Section B Technical reserves, item 9 Other technical reserves.

**Art. 12.** (1) (Suppl. – SG, iss. 3 in 2008) The unexpired risk reserve is set up to cover the risks for the time between the end of the reporting period and the date on which the term of the insurance, reinsurance or health insurance contract expires, in order to cover the payments and expenses related to these risks, which are expected to exceed the formed unearned premium reserve.

(2) The company shall form unexpired risk reserve, where for the last preceding 3 years, the current year included, the result according to Appendix No. 3 is negative. In such case the company shall submit to the Commission actuarial accounts for the achievement of premium adequacy.

(3) The amount of the unexpired risk reserve shall be determined in accordance with Appendix No. 4.

**Art. 13.** (1) The mathematical reserve is formed to meet future payments in relation to the insurances under Section I, item 1 – 5 of Annex No. 1 to the Insurance Code.

(2) The mathematical reserve is calculated by the prospective valuation method which includes:

1. the difference between:

a) the net premium reserve, representing the present value of the expected future insurance payments, arising from the conditions of the concluded insurance contracts, including:

aa) all guaranteed sums, including the guaranteed surrender values;

bb) the bonuses to which the insured or the third-party beneficiaries are entitled by virtue of the insurance contracts;

cc) all rights which are provided to the insured or the third-party beneficiaries as option in the insurance contracts;

b) the present value of the expected future net premiums, and

2. an additional amount for administrative costs – obtained as a difference between the present value of the expected future administrative costs, on the basis of the technical plan of the relevant insurance and a reasonable estimate of their future values, and the present value of the administrative costs loadings in the expected future premiums according to the technical plan.

(3) In the cases where due to the characteristics of the contract the application of prospective method for the calculation of the mathematical reserve is impossible, a retrospective method shall be applied being the difference between:

1. the amount of the premium income reduced with the acquisition costs laid down in the technical plan, and the accumulated income, and
2. the sum of the accumulated value of the effected insurance payments, including the formed outstanding claims reserve, and the recognized administrative costs calculated in the premium – at amount as laid down in the technical plan.

(4) The basis for determination of the mathematical reserve corresponds to the basis for recognition of the premium income in the annual report of the company.

(5) The method used to calculate the mathematical reserve must be based on reasonable actuarial valuations, taking into account also the method of valuation of the assets which serve as a cover.

(6) The statistical elements in the reserve valuation and the calculated loadings for expenses shall be determined on the basis of reasonable assumptions, taking into account the terms and conditions of the insurance contract, the type of contract and the expected value of the future administrative costs and commissions.

(7) The method of calculation of the technical reserves or the bases of calculation cannot be changed unjustifiably, with the exception of the cases where this is done with the purpose of adequate distribution of the income of the insurance contracts for the period of validity of each contract.

(8) With periodic payment of the premiums, the expected future net premiums under para 2, item 1, letter “b” can be modified by a Zillmer adjustment which reflects the present value of the unpaid acquisition costs.

(9) (Am. – SG, iss. 49 in 2010) Paragraph 8 shall not be applied by insurers which indicate in the asset side of the balance sheet deferred acquisition costs on the insurances, for which a mathematical reserve is formed.

(10) The maximum amount of the used technical interest rate in the calculation of the premiums and reserves shall be 3,5 per cent.

(11) The used mortality tables must reflect the national experience and/or the behavior of the insurance aggregate.

(12) The mathematical reserve under any insurance contract may not be negative and may not be less than the amount of the guaranteed surrender value at the time of the reserve's determination.

(13) The mathematical reserve is a sum of the individual reserves calculated separately for each acting insurance contract.

**Art. 14.** The capitalized amount of the pensions is the mathematical reserve, determined in accordance with Art. 13 for the insurances of Section I, item 1, letter "b" of Annex No. 1 to the Insurance Code.

**Art. 15.** (1) The basis and the methods for calculation of the technical reserves for the insurances of Section I of Annex No. 1 to the Insurance Code, including the distributed under the insurance contracts income – in case of insurance contracts with participation in the investment income, are public. In the annual actuarial report, filed with the Commission, the insurers shall indicate: the total income from investments of the technical reserves and the way in which it is determined; the share of this income, distributed under the insurance contracts and the basis on which the distribution was made.

(2) The distribution of income under the insurance contracts with participation in investment income is done on the basis of the individual amount of the mathematical reserve or the capitalized amount of the pensions in the current year, according the conditions of the contract.

(3) The distributed income is paid to the insured or to the third-party beneficiaries or is included in the mathematical reserve or in the capitalized amount of the pensions under the contracts.

**Art. 16.** (1) The premium reserves carried forward are formed under the insurances with saving element according Section I of Annex No. 1 to the Insurance Code, for cover of the expected future unfavorable deviations in the income from investments.

(2) The premium reserves carried forward are used to supplement the income for distribution under the insurance contracts, or for replenishment of the shortage of the income from investments for cover of the technical interest.

(3) A source for formation of the premium reserves carried forward is the difference between the income from investments, reduced with the technical interest, and the actually distributed amount under Art. 15.

(4) The set up premium reserves carried forward are subject to distribution among the insurance contracts within a period of five years.

**Art. 17.** (1) The unit-linked life insurance reserve is formed for cover of the insurer's liabilities under insurance contracts, where the investment risk is borne by the insured or the third-party beneficiary.

(2) The reserve under para 1 includes the liabilities of the insurer, which are determined by the amount and/or the net income from preliminarily set in the insurance contract assets or index. The net income may be reduced with costs of the investment fund management, the amount of which may not be higher than 10 per cent from the realized net income.

(3) In relation to unit-linked life insurance, in order to cover risks under item 1, 2, 4, 5 and 6 from Section I of Annex No. 1 to the Insurance Code, as well as guaranteed surrender values and expenses related to the insurance activity, the relevant reserves under Art. 4 para 1 shall be set up.

**Art. 18.** (1) The bonus and discount reserve is formed to meet the liabilities for payment of amounts, designated for insuring, insured, socially insured persons and for third-party beneficiaries, in the form of bonuses and discounts, arising from the risk development.

(2) The bonus and discount reserve includes:

1. amounts which are designated for insuring, insured, socially insured persons and for third-party beneficiaries, in the form of bonuses, and which are not paid at the end of the reporting period;
2. participations in the positive result which are not paid off;
3. sums up to the amount to which they represent a partial refund of premiums, relating to the current reporting period, except for the cases in which the reduction is made at the beginning of the contract's period of validity, upon payment of the premium.

(3) The reserve includes bonuses and discounts up to amount to which they are not included in another formed reserve or are not recorded as an expense for the reporting period.

### **Section III Insurance Reserves in Reinsurance and Co-insurance**

**Art. 19.** (Suppl. – SG, iss. 3 in 2008) An insurer or reinsurer, carrying out outward reinsurance shall account for the reinsurers' share in the formed technical reserves according the conditions of the reinsurance contracts.

**Art. 20.** An insurer carrying out inward reinsurance shall form the types of reserves under Sections I and II according the conditions of the reinsurance contract.

**Art. 21.** An insurer carrying out co-insurance shall form the types of reserves under Sections I and II, accounting for its share according the conditions of the co-insurance contract.

### **ADDITIONAL PROVISIONS**

**§ 1.** For the purposes of this Ordinance:

1. (Am. – SG, iss. 3 in 2008) “Company” means an insurance joint-stock company, mutual insurance cooperative, reinsurance joint-stock company, an insurer from a third country carrying out insurance activity in the Republic of Bulgaria through a branch registered under the Commercial Law, a reinsurer from a third country carrying out reinsurance activity in the Republic of Bulgaria through a branch registered under the Commercial Law and a health insurance company.

2. “Net damage quota” means the ratio between the net incurred claims and the net earned premiums for the same period.

3. (Suppl. – SG, iss. 3 in 2008) “Net incurred claims” means the claims, relating to insurance events occurred during the reporting period, less the share of the reinsurers or the retrocessionaires. They are determined as a sum of the effected payments and the expenses for settlement of claims during the current year, less the refunded indemnities and amounts from reinsurers or retrocessionaires, and the difference between the outstanding claims reserve at the year’s end and the outstanding claims reserve at the beginning of the year (without the share of the reinsurers or the retrocessionaires in the outstanding claims reserve).

4. (Suppl. – SG, iss. 3 in 2008) “Net earned premiums” means the portion of the premium income, relating to the undertaken by the company risk during the reporting period, less the share of the reinsurers or retrocessionaires. It is determined as a sum of the premiums in the current year, reduced with the ceded premiums of reinsurers or retrocessionaires, and the difference between the unearned premium reserve at the beginning of the year and the unearned premium reserve at the end of the year (without the share of the reinsurers or the retrocessionaires in the unearned premium reserve).

5. (Suppl. – SG, iss. 3 in 2008) “Claim” means an arisen right of an insured, socially secured person or of third-party beneficiary for the receiving of payment under an insurance or health insurance contract, which right has been claimed or may be also claimed to the insurer or the health insurance company. Claim shall be also a right arisen of an insurer or reinsurer (retrocedent) under a reinsurance contract. In insurance “claim” and “damage” are synonymous.

6. (Suppl. – SG, iss. 3 in 2008) “Technical plan” means the analytical presentation of the constituent elements of the insurance, reinsurance or health insurance premium.

7. (Suppl. – SG, iss. 3 in 2008) ”Acquisition costs” means the costs arising from conclusion or renewal of the insurance, reinsurance or health insurance contracts which can be:

a) (Suppl. – SG, iss. 3 in 2008) direct – acquisition commissions (the cash commissions in the payment of periodic premiums under long-term insurances according Section I of Annex No. 1 to the Insurance Code are not included), expenses for the drawing up of insurance, reinsurance or health insurance contracts and for their inclusion in the insurance, reinsurance or health insurance portfolio;

b) indirect – for advertisement and administrative costs, related to the preparation of offers, conclusion of contracts and renewal of already concluded contracts.

8. (Suppl. – SG, iss. 3 in 2008) “Administrative costs” means the costs arising from premium collection, servicing of the insurance or health insurance contracts and the



reinsurance, handling of bonuses and discounts and administration of the insurance, reinsurance or the health insurance portfolio.

9. (Suppl. – SG, iss. 3 in 2008) “Claims settlement costs” means the costs for settlement of claims for payment of insurance, reinsurance or health insurance indemnities, sums or other liabilities of the company on the ground of insurance, reinsurance or health insurance contracts, regardless whether made by the employed personnel of the company, or are costs for external services.

10. (Suppl. – SG, iss. 3 in 2008) “Deferred acquisition costs” means the acquisition costs, relating to the unexpired period of an insurance, reinsurance or health insurance cover under acting at the end of the reporting period and effectuated in the same period insurance, reinsurance or health insurance contracts, which have been carried over to following reporting periods.

11. (Suppl. – SG, iss. 3 in 2008) “Premium income” means the recognized in the financial statement of the insurer, reinsurer or the health insurance company premium income.

12. (Suppl. – SG, iss. 3 in 2008) “Net premium income” means the premium income less the ceded premiums of reinsurers or retrocessionaires.

13. “Net premiums” means the present value of the expected future payments, deferred for the period of payment of the premiums.

## TRANSITIONAL AND FINAL PROVISIONS

§ 2. For the insurance contracts with participation in the income from investments, concluded before the date of coming into force of this Ordinance, shall apply the rules for participation in the income according Art. 17 of the Ordinance on the procedure and methodology for formation of the insurance and health insurance reserves, adopted by Decree No. 13 of the Council of Ministers from 24 January, 2003 (SG, iss. 10 in 2003).

§ 3. The maximum rate of the technical interest under Art. 13 para 10 shall apply only in relation to the insurance contracts concluded after 1 October, 2006.

§ 4. Ordinance on the procedure and methodology for formation of the insurance and health insurance reserves, adopted by Decree No. 13 of the Council of Ministers from 24 January, 2003 (SG, iss. 10 in 2003) is repealed.

§ 5. In Ordinance No. 21 in 2005 on the own funds and solvency margin of insurers and health insurance companies (prom. SG, iss. 29 in 2005; am. and suppl., iss. 22 in 2006) shall be made the following amendments:

1. In Art. 14 para 2:

a) in item 1 the text “Art. 17 of Ordinance on the procedure and methodology for formation of the insurance and health insurance reserves, adopted by Decree No. 13 of the Council of Ministers from 24 January, 2003 (SG, iss. 10 in 2003)” shall be replaced with “Art. 15 of Ordinance No. 27 in 2006 on the procedure and methodology for the formation of the technical reserves by insurers and of the health insurance reserves (SG, iss. 36 in 2006)”;

- b) in item 2 the text “Art. 17 of Ordinance on the procedure and methodology for formation of the insurance and health insurance reserves” shall be replaced with “Art. 15 of Ordinance No. 27 in 2006 on the procedure and methodology for the formation of the technical reserves by insurers and of the health insurance reserves”;

2. Everywhere in Appendix No. 1 to Art. 20 para 2, the text “Art. 13 para 3 of Ordinance on the procedure and methodology for formation of the insurance and health insurance reserves” shall be replaced with “Art. 11 para 3 of Ordinance No. 27 in 2006 on the procedure and methodology for the formation of the technical reserves by insurers and of the health insurance reserves”.

**§ 6.** In Ordinance No. 24 in 2006 on the mandatory insurance according Art. 249 item 1 and 2 of the Insurance Code and on the methodology of settlement of claims for compensation of damages caused to motor vehicles (SG, iss. 25 in 2006), in Art. 17 para 1 shall be made the following amendments:

1. the main text is amended as follows:

(1) To attest to the onset of a road traffic accident shall be presented an original of a protocol of a road traffic accident, a memorandum of ascertainment or a certificate prepared by the authorities of the Interior Ministry, and:”

2. Item 1 shall be deleted.

**§ 7.** This Ordinance is issued on the grounds of § 12, para 2 in relation to Art. 68 para 4 of the Insurance Code and Art. 90c para 4 of the Health Insurance Act and was adopted by Decision No. 55-H from 29 March, 2006 of the Financial Supervision Commission.

**§ 8.** The Financial Supervision Commission shall give guidance on the implementation of the Ordinance.

TRANSITIONAL AND FINAL PROVISIONS to Ordinance on Amendment and Supplement to Ordinance No. 27 in 2006 on the procedure and methodology for the formation of the technical reserves by insurers and of the health insurance reserves

(Prom. - SG, iss. 65 in 2007)

§ 3. The insurers which recalculate the amount of the outstanding claims reserve under this Ordinance at 30 Sept., 2007, shall submit the information according to Art. 8 para 7 along with the quarterly statistics for the third quarter of 2007.

TRANSITIONAL AND FINAL PROVISIONS to Ordinance on amendment and supplement of Ordinance No. 30 in 2006 on the requirements for the accounting, form and contents of the financial statements, statistics, reports and supplements of insurers, reinsurers and health insurance companies

(Prom. - SG, iss. 49 in 2010, in effect from 31 August, 2010)

§ 15. The Ordinance comes into effect from 31 August, 2010. The information under Art. 7, complied with the Ordinance provisions, shall be submitted at the Commission by 31 October, 2010.

TRANSITIONAL AND FINAL PROVISIONS to Ordinance on amendment and supplement of Ordinance No. 27 in 2006 on the procedure and methodology for the formation of the technical reserves by insurers and of the health insurance reserves

(Prom. - SG, iss. 89 in 2010, in effect from 12 November, 2010)

§ 10. Article 11a shall be applied for contracts concluded after 15 November, 2010.

§ 12. The Ordinance comes into effect from the day of its promulgation in State Gazette.

**Appendix No. 1**  
to Art. 6 para 6

(Suppl. – SG, iss. 3 in 2008)

Methods of formation of the equalization reserve for the credit insurance class.

For the formation of an equalization reserve for credit insurances, the insurer or reinsurer shall apply one of the following methods:

*Method No. 1*

1. In relation to credit insurances, the insurer or reinsurer shall set up an equalization reserve to which shall be charged any technical deficit arising in that class of insurance for a financial year.

2. The equalization reserve shall in each financial year receive 75% of any technical surplus arising on credit insurance business, calculated in accordance with item 3, subject to a limit of 12% of the premium, less the ceded to reinsurers or retrocessionaires premium until the accumulated amount of the equalization reserve has reached 150% of the highest annual amount of the premium received in the last 5 financial years less the ceded premium of reinsurers or retrocessionaires.

3. The result for formation of an equalization fund is calculated by the following formula:

$$R_t = P - CP + RC + UPR_b - UPR_e - I + RI + OCR_b - OCR_e$$

Where:

$R_t$  is the result for the setting up of an equalization reserve;

P = the premium income in the current year from credit insurances, less the portion of the calculated in the premium loadings for expenses;

CP – the ceded premiums of reinsurers or retrocessionaires of credit insurances;

RC – the income from reinsurance commissions of credit insurances;

$UPR_b$  – unearned premium reserve of credit insurance, less the share of reinsurers or retrocessionaires in the reserve, in the beginning of the year; for the purposes of these calculations the expenses loadings according the technical plan are not included in the unearned premium reserve (including the share of the reinsurer or the retrocessionaire);

$UPR_e$  – the unearned premium reserve of credit insurances, less the share of reinsurers or retrocessionaires in the reserve, at the year's end; for the purposes of these calculations the expenses loadings according the technical plan are not included in the unearned premium reserve (including the share of the reinsurer or the retrocessionaire);

I – the paid indemnities and amounts in the current year under credit insurances;

RI – the refunded by reinsurers or retrocessionaires indemnities and amounts under credit insurances;

OCR<sub>b</sub> – the outstanding claims reserve in the beginning of the year of credit insurances, less the share of reinsurers or retrocessionaires in the reserve;

OCR<sub>e</sub> – the outstanding claims reserve at the year's end of credit insurances, less the share of reinsurers and retrocessionaires in the reserve.

*Method No. 2*

1. For credit insurances, the insurer or reinsurer shall set up an equalization reserve to which shall be charged any technical deficit arising in that class of insurance for the financial year.

2. The minimum amount of the equalization reserve shall be 134% of the average of premiums received annually during the last 5 financial years, after subtraction of ceded premiums of reinsurers or retrocessionaires and addition of the received premiums of inward reinsurance.

3. Such reserve shall in each of the successive financial years received 75% of any technical surplus arising in that class of insurance until the reserve is at least equal to the minimum calculated in accordance with item 2.

*Method No. 3*

1. An equalization reserve shall be formed for credit insurances for the purpose of offsetting any above-average claims ratio for a financial year.

2. The equalization reserve shall be calculated on the basis of the method set out below:

All calculations shall relate to income and expenditure for the insurer's or reinsurer's own account (without the share of reinsurers or retrocessionaires). Every financial year when the claims ratio is lower than the average claims ratio for the reference period, an amount shall be placed to the equalization reserve, arrived at by multiplying the difference between the two ratios by the earned premiums for the financial year. The increase of the equalization reserve shall be done until the time when the accumulated amount of the equalization reserve reaches six times the standard deviation of the claims ratio for the considered period from the average claims ratio, multiplied by the earned premiums for the financial year. Where the claims ratio for the financial year is higher than the average claims ratio, from the amount of the equalization reserve shall be subtracted a sum, arrived at by multiplying the difference between the two ratios by the earned premiums for the financial year. Irrespective of claims experience, 3,5% of the required amount of the equalization reserve shall be every year first placed to that reserve until its required amount has been reached or restored. The length of the reference period shall be not less than 15 years and not more than 30 years. No equalization reserve need be formed if there are no raised claims in the reference period. The required amount of the equalization reserve and the amount to be taken from it may be reduced if the average claims ratio for the reference period in conjunction with the expenses ratio show that the premiums include a safety margin.

*Method No. 4*

1. An equalization reserve shall be formed for credit insurances for the purpose of offsetting any above-average claims ratio for a financial year.

2. The equalization reserve shall be calculated on the basis of the method set out below.

All calculations shall relate to income and expenditure for the insurer's and reinsurer's own account (without the share of the reinsurers or the retrocessionaires).

Every financial year when the claims ratio is lower than the average claims ratio for the reference period, an amount shall be placed to the equalization reserve, arrived at by multiplying the difference between the two ratios by the earned premiums for the financial year. The increase of the equalization reserve shall be done until the time when the accumulated amount of the equalization reserve reaches six times the standard deviation of the claims ratio for the reference period from the average claims ratio, multiplied by the earned premiums for the financial year.

Where the claims ratio for any financial year is in excess of the average claims ratio, from the amount of the equalization reserve shall be subtracted a sum, arrived at by multiplying the difference between the two ratios by the earned premiums for the financial year. The subtraction from the equalization reserve shall be done till the time it reaches the minimum required amount. The minimum required amount shall be equal to three times the standard deviation of the claims ratio in the reference period from average claims ratio, multiplied by the earned premiums for the financial year.

The length of the reference period shall be not less than 15 years and not more than 30 years. No equalization reserve need be formed if there are no raised claims for the reference period.

Both the required amount of the equalization reserve and the amount to be placed to it or the amount to be taken from it may be reduced if the average claims ratio for the reference period in conjunction with the expenses ratio show that the premiums include a safety margin and that safety margin is more than 1,5 times the standard deviation of the claims ratio in the reference period. In such a case the amount in question shall be multiplied by 1,5 times the standard deviation and the safety margin.

## **Appendix No. 2**

to Art. 9 para 2 item 1

Method of calculating the reserve for arisen but unsubmitted claims (outstanding claims reserve) under Art. 9 para 2 item 1

$$RIUC_t = (VOC_{T-1} (1) \times (NCS_{t [10,12]} \times AvAC_{t [10,12]})) / (NCS_{T-1 [10,12]} \times AvAC_{T-1 [10,12]}) \times Rn,$$

Where:

$RIUC_t$  is the reserve for incurred but unsubmitted claims at the end of the current year (T);  
 $VOC_{T-1} (1)$  – value of the claims incurred in the preceding (T-1) year and submitted within the current year (T);

$NCS_{t [10,12]}$  – the number of claims submitted in the preceding three months of the current year (T);

$AvAC_{t [10,12]}$  – the average amount of claims for the submitted in the last three months of the current (T) year claims;

$NCS_{T-1 [10,12]}$  – the number of claims submitted in the last three months of the preceding year (T-1);

$AvAC_{T-1 [10,12]}$  - the average amount of claim for the submitted in the last three months of the previous (T-1) year claims;

$Rn$  – the factor reflecting the expectation for further development for the period after the expiration of one year from the end of the current year (T).  $Rn$  is based on the statistics of the company and may not be less than 1.

When calculating the average amount of a claim and in case of noticed large deviations in the amounts of the individual claims, if needed, adjustment of the data is made and, in particular, from the calculations are excluded some claims which have unusually high values.

According to the characteristics of the different insurances and the company's portfolio, the period of examination may be longer than three months – for the indicators of NCSt and AvAC.

The method may also be applied in the determination of the reserve at date, other than the year's end, where in such case a one-year period is examined again, that does not coincide with the calendar year.

**Appendix No. 3**  
to Art. 12, para 2  
(Am. – SG, iss. 89 in 2010)

Determination of the need of formation of unexpired risk reserve.

The result of determination of the need of formation of the unexpired risk reserve shall be calculated by the following formula:

$$R_t = P + UPR_b - UPR_e - I + OCR_b - OCR_e - E$$

where

$R_t$  is the result of formation of unexpired risk reserve;

P – the premium income in the current year of carried out insurance and inward reinsurance or health insurance;

$UPR_b$  – unearned premium reserve at the beginning of the year;

$UPR_e$  – unearned premium reserve at the year's end;

I – the indemnities and amounts paid in the current year under carried out insurance and inward insurance or health insurance;

$OCR_b$  – the outstanding claims reserve at the beginning of the year;

$OCR_e$  – the outstanding claims reserve at the end of the year;

E – the expenses incurred in the current year.

Where Art. 11, para 2 is applied, in this position shall be included the incurred during the year administrative costs and the other expenses calculated in the premium income during the current year, at amount laid down in the technical plan.

**Appendix No. 4**  
to Art. 12 para 3  
(Am. – SG, iss. 89 in 2010)

Determination of the amount for the unexpired risk reserve.

The amount of the unexpired risk reserve is determined by the following formula:

$$URR = UPR_e \times (C-1)$$

where:

URR is the unexpired risk reserve;

UPR<sub>e</sub> – unearned premium reserve at the end of the respective reporting period, at which date the amount of the unexpired risk reserve is determined;

C – sufficiency coefficient of the unearned premium reserve. The sufficiency coefficient of the unearned premium reserve is determined by one of the following two formulae:

$$C = (I + AE + OCR_e - OCR_b) / (PI - E + UPR_b - UPR_e)$$

when Art. 11 para 2 is applied;

$$C = (I + IE + OCR_e - OCR_b) / (PI + UPR_b - UPR_e)$$

when Art. 11 para 3 is applied,

where:

I - are the paid indemnities and sums in the current year under carried out insurance and inward reinsurance or health insurance;

AE – the administrative expenses made in the current year;

OCR<sub>e</sub> – outstanding claims reserve at the end of the current year;

OCR<sub>b</sub> – outstanding claims reserve in the beginning of the current year;

PI – the premium income in the current year;

E – the laid down in the technical plan acquisition costs, fees and deductions in funds;

UPR<sub>b</sub> - the unearned premium reserve in the beginning of the current year;

UPR<sub>e</sub> – the unearned premium reserve at the end of the relevant reporting period, at which date the amount of the unexpired risk reserve is determined;

IE – the incurred during the current year expenses

**Appendix No. 5**  
to Art. 8a, para 4  
(New – SG, iss. 89 in 2010)

Determination of the amount of the additional reserve for submitted but unpaid claims under Art. 8a

The amount of the additional reserve for submitted but unpaid claims is determined by the following formula:

$$ARSUC_n = ARUC \times (C - 1)$$

Where:

ARSUC<sub>n</sub> – additional reserve for submitted but unpaid claims at the end of the relevant reporting period;

n – the relevant reporting period which can be:

- the end of the current year, at which moment a test of sufficiency is conducted of the formed before 12 months reserve for submitted but unpaid claims, or
- the end of the first, second or third quarter of the next year at which date additional reserve is formed for the unpaid until this moment claims, submitted before the date at which insufficiency of the formed reserve is established;

ARUC – amount of the reserve for unpaid at the end of the relevant reporting period claims, submitted before the moment at which insufficiency of the reserve is established;

C – coefficient of the reserve sufficiency for submitted but unpaid claims.

The coefficient is with value bigger than one.

The coefficient for sufficiency of the reserve for submitted but unpaid claims shall be defined by the following formula:

$$C = PC / RUC$$

Where:

PC – the paid during the current year claims for events submitted before the end of the preceding year; and

RUC – the part of the formed reserve for submitted but unpaid claims at the end of the preceding year, corresponding to the paid during the current year claims for events submitted before the end of the preceding year.

In case of availability of the conditions under Art. 8a, para 6, with regard to the types of insurances with a small relative share in the company's portfolio, or with low frequency of the events and a number of the paid during the current year claims below 10% of the total number of the paid on all types of insurances claims, the coefficient of sufficiency of the reserve for submitted but unpaid claims is determined on the basis of data for the last three years by the following formula:

$$C = (PC_n / RUC_n + PC_{n-1} / RUC_{n-1} + PC_{n-2} / RUC_{n-2}) / 3$$

Where:

$PC_n$  – the paid during the current “n” year claims for events submitted before the beginning of the current year;

$RUC_n$  – the part of the formed reserve for submitted but unpaid claims at the beginning of the current “n” year, corresponding to the paid during the current year claims on events, submitted before the end of the current year;

$PC_{n-1}$  – the paid during the preceding “n-1” and the current “n” year claims for events, submitted before the beginning of the previous year;

$RUC_{n-1}$  – the part of the formed reserve for submitted but unpaid claims at the beginning of the previous “n-1” year, corresponding to the paid in the previous “n-1” and the current “n” year claims for events, submitted before the beginning of the previous year;

$PC_{n-2}$  - the paid during the last three years: “n-2” (the year preceding the previous year); the previous (n-1) and the current “n” year, claims for events, submitted before the beginning of year “n-2”, preceding the previous year;

$RUC_{n-2}$  - the part of the formed reserve for submitted but unpaid claims at the beginning of the year “n-2” year, preceding the previous year, corresponding to the paid in the last three years claims on events, submitted before the beginning of year “n-2”, preceding the previous year;



The reasoned request for approval of the method of formation of the reserve for incurred but unsubmitted claims shall contain:

1. In relation to Item 1:

A detailed description to be submitted of the methods applied in the determination of the reserve amount. With regard to the manner of determination of the development coefficients used in forecasting of the expected amount of claims, which will be submitted with delay, to be considered:

a) the rate of the development coefficients for each year of event, or the ratio between the claims which are submitted in a given year of development and the previous year;

b) the existence of a trend of increase, decrease or change in the value of the coefficients.

Upon manifestation of such trend, it has to be reflected in determination of the coefficient used for forecasting of the unsubmitted claims. In view of this, the development coefficients can be determined as weighted average or arithmetic mean values on the basis only of the last several periods, in which their values are close. The determination of the coefficients value can also be made by attaching different weight to the coefficients for past periods, the closer the period to the moment of the reserve assessment, the higher being the weight. The selected approach may be applied in the determination of all development coefficients, or only for these, in which a certain trend is observed;

c) the presence of great fluctuations in the development coefficients values.

In case that adjustment of the development coefficients value is made, it will be required the methods used for that to be described in detail, by comparing the coefficient values and the value of the obtained results of the reserve amount, before and after the adjustment.

d) way of determination of the value of the used, in the chain-ladder method, final development coefficient (the so called tail factor), reflecting the expected value of the claims after the last year of development.

e) the availability of sufficiently reliable and representative data about the individual homogeneous groups of risks and the need of use of market data in determining the value of the development coefficients, with a view to stabilization of their values. The calculations of the reserve can be made by using development coefficients obtained from market data, or according data of the insurer and market data, participating with different weight, determined according the extent of reliability of the insurer's data. The extent of the insurer's data reliability is determined by the insurer according to the quality of its data, the portfolio volume and the existence of historical experience. The used by the insurer weight of its own and the market data must be reasoned.

2. In relation to Item 2:

To be described in detail, analyzed and compared the results of all used by the insurer methods for determination of the reserve amount, where obligatorily shall be submitted the results in case of use of:

a) the chain-ladder method, applied on the basis of the accumulated value of the submitted claims;

b) the chain-ladder method applied on the basis of the accumulated value of the paid claims,

with development coefficients determined: by data of the insurer; by market data and by the insurer's data and market data, participating with different weight, determined according to the extent of reliability of the insurer's data.

### 3. In relation to Item 3:

3.1. The insurer must have internal processes and procedures in place, through which to ensure proper, complete and reliable data, used in the calculation of the reserves. That means that the data should be:

a) sufficiently detailed, in order to allow identification of the specifics of all risks and their behavior and impact;

b) to cover sufficiently long period of time, so that the use to be possible of proper actuarial techniques reflecting the trends of development. At the same time, the information should be consistent for the time periods, and the data should not be contradictory and variable. All significant deviations must be specified and analyzed;

c) to be appropriate, realistic and representative with regard to the homogeneous risk groups (with close development of the frequency and the average amount of the claims, such as: unsubmitted claims in connection with material damages; unsubmitted claims in connection with non-material damages; benefits foregone and lost profits; renewed claims, etc.) to allow the tracing of the development trends and the specifics of the behavior and the impact of the individual risks, which have an impact on the reserve amount; to allow selection of proper assumptions and methods of assessment;

d) there should be no material errors and omissions, the information should be timely, trustworthy, authentic and reliable.

3.2. In regard to the data filed by the insurers with the FSC about the number and the amount of the submitted and paid claims at the end of each quarter:

3.2.1 with a view to ensuring data comparability, it is necessary:

a) the data relating to the number and the amount of the submitted and paid claims to be indicated in accumulated manner, i.e. the value of each next period to include the preceding;

b) the values until 2006 inclusive, to include also data on Green card insurance;

c) the data to include also border insurance TPL;

d) the amount of the paid claims not to include the expenses on loss adjustment;

e) the value of the paid claims not to include revenues from recourse claims;

f) not to make correction of the amount of the large damages;

g) the amount of the submitted claims to be determined as follows:

- for submitted and paid claims – the amount of the paid sum;

- for submitted but unpaid claims – the amount with which the value of the claim is included in the loss reserve at the end of the reporting period;

h) the data about the number of the submitted (paid) claims should correspond to the data about their value, such for instance as:

- the surrenders must not be included in the number of the submitted claims;

- in case of payment of the claims in installments, it is required in the data about the number of claims for each period to be stated the part, proportionate to the paid amount;

i) in case of renewed claims, as year of the claim's submission to be accepted the date of the claim's resubmission.

3.2.2. the data to be given in the form of a table with the following content:

- in relation to the annual data:

Gross amount (number) of the submitted (paid) claims in connection with material (non-material) damages											
Year of event	Year of submission (payment) of the claim										
	0	1	2	3	4	5	6	7	8	9	10
n-10											
n-9											
n-8											
n-7											
n-6											
n-5											
n-4											
n-3											
n-2											
n-1											
n											

- in relation to the submitted quarterly data:

Quarter of the event	Quarter of the payment (submission) of the claims																																						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			
n-35																																							
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n-12																																							
n-11																																							
n-10																																							



FUPR – the formed for the relevant insured motor vehicle unearned premium reserve under Art. 11;

EC – estimated costs after the end of the reporting period, determined by the formula:

$$EC = (IAC \times R) / NIO$$

where:

IAC – administrative costs incurred during the preceding one-year period

R – ratio, accounting for the relative share of the administrative costs on Third Party Liability insurance of motorists in the total amount of the administrative costs incurred in all types of insurances;

$$R = EPTPL / TEP$$

EPTPL – the gross earned premiums on Third Party Liability insurance of the motorists during the preceding one year period, determined by adding to the accrued premium income the amount of the unearned premium reserve at the beginning of the period, and deducting the unearned premium reserve at the end of the period;

TEP – total amount of the earned premiums from all types of insurances during the preceding one year period.

Whenever the insurer uses another way for distribution of the administrative costs by types of insurances, it can define the rate of the ratio, accounting for the relevant share of the administrative costs on Third Party Liability insurance of motorists in the total amount of the incurred administrative costs on the basis of another approach, after submitting a reasoned justification for that at the FSC.

NIO – number of insured objects, made equal as on annual basis, determined by the formula:

$$NIO = \sum_{i=1}^n ND / 365$$

where:

ND – number of days of validity, in the preceding one-year period, of the insurance contract for a given motor vehicle;

n – number of the insured motor vehicles under valid during the preceding one-year period contracts.

Where Art. 11, para 3 is applied in the formation of the unearned premium reserve, the costs amount shall also include the amount of acquisition costs, fees and deductions underlying the technical plan, and the estimated costs shall be determined by the following formula:

$$EC = (IAC \times R) / NIO + CPI \times RSAC$$

където:

CPI – premium income charged under the contract

RSAC – relative share of the acquisition costs according the insurance-technical plan.

According to the quarter in which the contract is concluded, the minimum required amount for cover of the risk is determined:

1. for contracts concluded in the period from 01.01. to 31.03. of the current „n” year

$$\text{MRACR} = \text{ARP}_{n-1} \times 0,25 + \text{ARP}_{n-2} \times 0,75$$

2. for contracts concluded in the period from 01.04. to 30.06. of the current „n” year

$$\text{MRACR} = \text{ARP}_{n-1} \times 0,50 + \text{ARP}_{n-2} \times 0,50$$

3. for contracts concluded in the period from 01.07. to 30.09. of the current „n” year

$$\text{MRACR} = \text{ARP}_{n-1} \times 0,75 + \text{ARP}_{n-2} \times 0,25$$

4. for contracts concluded in the period from 01.10. to 31.12. of the current „n” year

$$\text{MRACR} = \text{ARP}_{n-1}$$

where:

$\text{ARP}_{n-1}$  - the average for the market risk premium for one insured motor vehicle for the previous year

$\text{ARP}_{n-2}$  – the average for the market risk premium for one insured motor vehicle for the year preceding the previous year.