

## **RULE No. 37/2016**

### **on the methodology of calculation by the Financial Supervisory Authority of maximum premium tariffs for the compulsory civil liability insurance for damage to third parties by motor vehicle accidents**

*Pursuant to provisions of art. 2 paragraph (1) letter b), art. 3 paragraph (1) letter b) and of art. 6 paragraph (2) of the Government Emergency Ordinance no. 93/2012 on the establishment, organization and functioning of the Financial Supervisory Authority, approved with amendments and additions under Law no. 113/2013, with subsequent amendments and additions,*

*for the implementation of provisions of art. 36 paragraph (3) of the Government Emergency Ordinance no. 54/2016 on compulsory motor liability insurance for damages caused to third parties by motor vehicle accidents and trams,*

*following deliberations of the Financial Supervisory Authority's Board in the meeting of 5 October 2016,*

*The Financial Supervisory Authority issues this rule:*

#### **Art. 1 - General provisions**

(1) This rule regulates the methodology applied by the Financial Supervisory Authority, hereinafter referred to as *A.S.F.*, for the calculation of maximum premium tariffs related to compulsory civil liability insurance for damage to third parties by motor vehicle accidents, hereinafter referred to as *R.C.A.*, according to provisions of art. 36 paragraph 93) of the Emergency Ordinance no. 54/2016 on compulsory motor liability insurance for damages caused to third parties by motor vehicle accidents and trams, hereinafter referred to as *G.E.O. no. 54/2016*.

(2) For the implementation of this rule, insurers authorized to practice RCA shall submit to A.S.F. data requested by it.

#### **Art. 2 - Categories of vehicles**

A.S.F. calculates maximum R.C.A. premium tariffs, in compliance with the methodology set out by this rule, for the following categories of vehicles:

a) passenger cars, SUVs and mixed vehicles with a maximum authorized mass less than 3.5 tons and maximum 9 seats;

- b) passenger motor vehicles (minibuses, buses, coaches, including specialized vehicles) with more than 9 seats;
- c) motorcycles, mopeds, hybrid electric motorcycles and ATVs with or without a sidecar;
- d) road tractors;
- e) motor vehicles for the transport of goods;
- f) trailers and semi-trailers;
- g) other vehicles (vehicles with special regime, machines etc.).

### **Art. 3 - Risk criteria considered in the structure of maximum premium tariffs**

(1) The structure of the tariff is built by segmentation on similar risks, taking into account the following risk criteria: type of policyholder (natural or legal person), age of the natural person, the technical characteristics of the vehicle (engine capacity or power, maximum authorized mass, number of seats), as follows:

- a) Cylinder capacity groups - passenger cars: less than or equal to 1200; 1201 - 1400; 1401-1600; 1601 - 1800; 1801 - 2000; 2001-2500; over 2500;
- b) Number of seats groups - passenger motor vehicles: 10-17; 18-40; 41-65; over 65; trams/trolley buses;
- c) Cylinder capacity groups - motorcycles, mopeds, hybrid electric motorcycles and ATVs with or without a sidecar: 1-50; over 50;
- d) Power groups - road tractors (HP): less than or equal to 45; over 45;
- e) Maximum authorized mass groups - vehicles intended primarily for transportation of goods (kg): <2300; 2300 – 3499; 3500 – 7499; 7500 – 15999; higher than or equal to 16000;
- f) Maximum authorized mass groups - trailers and semi-trailers (kg): <=750; 751-3500; 3501-10000; over 10000;
- g) Age groups - natural persons, passenger cars: <=25 years; 26-30 years; 31-40 years; 41-50 years; 51-60 years; >60 years.

(2) For the vehicle category referred to in art. 2 letter g), no separate risk criteria shall be used.

(3) A.S.F. calculates maximum premium tariffs for each category of vehicles referred to in art. 2 taking into account the risk criteria from paragraph (1), for periods of one year, for compensation limits provided for by the legislation in force, so as to ensure fulfillment of obligations arising from the conclusion of R.C.A. insurance contracts.

#### **Art. 4 - General principles**

(1) In order to determine a premium tariff for insure an uncertain event, A.S.F. shall make estimates of probabilities associated with the occurrence and/or severity of an event, estimates which are based on historical events happened and estimated trends.

(2) In order to estimate the risk premium, A.S.F. shall determine separately:

a) historical claims frequency, which is the ratio of claims number and risk exposure (insurance duration of the policy, expressed in years, aggregate for the portfolio of policies that have at least one day of risk coverage during the reference period);

b) historical average claim, which is the cost of claims related to the number of claims, where the cost of claims includes claims paid during the reference period aggregated with claims reserves approved for all claims incurred and approved during the reference period, but not yet paid at the end of the reference period ;

c) the impact of trends in historical average claim and historical claim frequency, to determine the expected frequency and the expected average claim for the period covering the premium tariff;

d) the impact of claims incurred and not approved.

e) the safety charge to ensure coverage of expenses with claims with a probability of at least 95%.

(3) The maximum premium tariffs will include the risk premium estimated according to paragraph (3), management and acquisition expenses, including R.C.A. taxes, cost of capital, charge related to the bonus-malus system, profit margin.

#### **Art. 5 - Data used in the calculation of maximum premium tariffs**

In order to determine the maximum premium tariffs for R.C.A., A.S.F. shall use the aggregate data at the level of R.C.A. market, as follows:

a) data on risk exposure and claims occurred in the accident years 2013-2015 and approved by 30 June 2016, either they are paid or in claims reserves approved on 30 June 2016, on categories of vehicles and risk criteria, as defined in art. 2 and art. 3 paragraph (1), to determine the frequency of historic claims, the historical average claim and impact of claims incurred and not approved;

b) data on the number and cost of claims for the period of 1 January 2010 - 30 June 2016, to determine trends;

c) expense rate determined as average of the last 3 years, according to accounting reports centralized at market level, which represents the amount of management and acquisition

expenses, taxes and contributions related to the R.C.A. activity, divided by the amount of gross premiums earned;

d) data on the structure of historical portfolio on bonus-malus classes, to quantify the adjustment of the tariff resulting in the tariff category for the B0 bonus-malus class, as it is defined in the A.S.F. Rule no. 23/2014 on compulsory insurance against civil liability for prejudices caused by vehicle accidents, with further amendments and additions.

#### **Art. 6 - Steps of determining the maximum premium tariffs**

In order to determine the maximum premium tariffs for R.C.A., A.S.F. shall go through the following steps:

- a) collection of data from insurance companies and verification thereof;
- b) primary individual analysis for each insurance company;
- c) aggregation of data provided by companies;
- d) primary analysis at market level;
- e) building the risk model;
- f) estimate of the risk premium (pure);
- g) calculation of the maximum premium;
- h) analysis of the impact of the tariff.

#### **Art. 7 - Estimate of the risk premium**

(1) For vehicles owned by natural persons, A.S.F. shall model the risk premium using the generalized linear models (GLM) for claim frequency and average claim, through the creation of segments based on the characteristics of the insured object (cylinder capacity) and the insured person (age).

(2) For the other categories of vehicles, other than those referred to in paragraph (1), A.S.F. shall estimate the risk premium by univariate analysis, as a product between the claim frequency and average claim for each category, taking into account the risk of a single criterion as set out in art. 3 paragraph (1).

#### **Art. 8 - Determination of maximum premium tariffs**

The maximum premium tariff shall be calculated using the following formula, based on generally accepted actuarial practices:

$$\text{Maximum premium tariff} = \frac{PR*(1+IBNR)*(1+f)^t*(1+i)^t}{(1-ch-p)*(1-bm)},$$

Where:

PR - the risk premium ensuring coverage of expenses with claims with a probability of at least 95%;

IBNR - the load factor for the claim reserve incurred but not approved;

f - annual rate of change of claim frequency (claims frequency trend);

i - annual rate of change of claim inflation (claim severity trend);

t - difference (in years) between the average date of occurrence of claims in the period of application of the tariff and the average date of occurrence of claims in the analyzed period;

ch - expenses of the insurers expressed as percentage of the gross premium (taxes, acquisition expenses, management expenses, cost of capital, other expenses);

bm - charge for the bonus/malus system;

p - profit margin

#### **Art. 9 - Entry into force**

This rule shall be published in the Official Journal of Romania, Part I, and shall enter into force on the date of its publication.

President of the Financial Supervisory Authority

Mișu Negrițoiu

Bucharest, 11.10.2016

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