



Research Article

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## Impact Analysis of the Change in Personal Injury Regulation in Albania

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### Abstract

The regulation, no. 53, setting the compensation for motor third party bodily injuries in Albania is amended and has changed on July 1st, 2018. A significant increase in claims cost is expected, with direct consequences for insurers and policyholders. In order to estimate this change, we have conducted an analysis aiming to understand how the new amendment in the regulation would impact claim costs of personal injury. We start with a brief overview of the Insurance market in Albania. We then continue with some more technical data regarding the domestic MTPL, followed by some key highlights, and continue with an introduction of rules and procedures on handling claims covered by contracts of compulsory insurance in the transport sector in Albania. Finally we reveal how the capitalized amount coefficient is calculated and will analyze the impact of change in personal injury claims in the Albanian insurance market.

**Keywords:** MTPL, personal injury, annuity, capitalized amount coefficient

### 1. Introduction

In 2017, compulsory motor insurance accounts for 67% of the Non-Life market with a premium volume of 9,964 million ALL and a growth of 4.82%, compared to the previous year. The table below provides some data about the Domestic Motor Third Party Liability for the period 2013-2017. As shown in the table, both the volume of written premiums and the value of paid claims have increased during the period under consideration. The Combined and the Expense Ratio remain a concern. Regarding the Expense Ratio, it is set out in the Compulsory Motor Insurance draft law, which is expected to be approved soon, not to exceed 40%. Almost the same indicators appear for the Green Card for which the Combined Ratio for the period under consideration is at 119%. While Border Insurance demonstrates more satisfactory results, the Combined Ratio for the considered period is 77%, but this product has an insignificant weight in the MTPL portfolio.

**Table 1.** Technical data (000 Lek/ALL). Source Albanian FSA.

DMTPL	2013	2014	2015	2016	2017
Gross written premiums	2,743,835	4,897,689	6,607,202	7,371,810	7,807,969
Gross claims paid	1,213,312	1,153,270	1,361,354	1,682,100	1,840,810
Net operating expenses	<b>1,866,458</b>	<b>2,266,808</b>	<b>3,033,189</b>	<b>3,821,264</b>	<b>4,346,780</b>
Net claims ratio	58.41%	37.37%	29.71%	33.66%	27.89%
Expense ratio	81.53%	72.57%	64.73%	71.80%	64.29%
Combined ratio	139.95%	109.94%	94.44%	105.46%	92.18%

As is known and explained by Stéphane de Collason, Motor Third Party Liabilities (MTPL) is a liability insurance, mandatory, guaranteeing that the insurer will indemnify the traffic losses, created

by the person who caused the traffic accident, to the victim. Same definition applies in Albania as well. In this regard, MTPL insurance gives the policyholders the assurance that the damage created, will be covered and that the person who triggered the accident will not be entitled this coverage. On a contrary, compulsory MTPL insurance gives the victims sureness that the losses caused to them will be covered.

Some key highlights regarding domestic MTPL:

- The insurance undertaking determines the insurance premium tariffs and starts their application after it informs the AFSA.
- Minimum Amount of Insurance Coverage compared to some selected country:

**Table 2.** Minimum Amount of Insurance Coverage in selected country<sup>1,2</sup>(values in Euro).

Country	Personal injury			Property damage		
	a)	b)	c)	a)	b)	c)
Albania	394,000	1,180,000	1,575,000	79,000	118,000	157,000
Kosovo	1,000,000	2,000,000	2,000,000	200,000	400,000	400,000
Montenegro	550,000	750,000	800,000	300,000	500,000	550,000
Macedonia	337,500	675,000	1,012,500	168,750	337,500	506,250
Serbia	1,000,000	1,000,000	1,000,000	200,000	200,000	200,000
Croatia	5,750,000	5,750,000	5,750,000	1,150,430	1,150,430	1,150,430
Italy	5,000,000	15,000,000	15,000,000	1,000,000	1,000,000	1,000,000

- The domestic MTPL risk is written to a single base tariff, with proportionate variations for different risk types (motorcycles are priced at a fixed discount to cars and trucks are priced at a fixed increase above cars).
- No other risk-based pricing is used – there is no price differentiation based upon age of driver/owner, location of owner, or of accident record (“no claims bonus”).
- The claims frequency for Motor TPL business in Albania is low (around 3%), if compared with the figures available in any other European country (usually more than 5%).

By regulation, any person that suffered a damage as a result of vehicle accident in the Republic of Albania, shall be entitled to compensation for losses or damages, which consist of:

(a) proprietary damage:

- personal injury resulting in death, temporary (partial or complete) and permanent (partial or complete) health injuries;
- material damage relate to the property damage or destruction.

(b) non-proprietary damage: biological damage; moral damage; existential damage.

Compensation for bodily injuries is a function of various parameters, such as: the age of the victim, the severity of the injury, the presence or not of relatives, the relationship of dependency between the victim and its relatives, income of the victim and income for own personal needs, duration of a potential hospitalization, retirement age.

## 2. Change in the Personal/Bodily Injury Regulation in Albania

In Albania, the law No. 10 076, February/2009, regulates compulsory insurance within the transport sector, but the rules and procedures for handling claims are guided by the Regulation no. 53. "On handling claims covered by contracts of compulsory insurance in the transport sector".

The liquidation technique normally used in the forensic practice is that of capitalization made

<sup>1</sup> where a)cars, b)buses and freight vehicles, including trailers and c) vehicles transporting hazardous substances

<sup>2</sup> Directive 2009/103/EC of the EU and the Council, as it was written on July 2<sup>nd</sup> 2018, stipulates the minimum allowed amount of cover which relates to the insurance on civil liability for the motor vehicles. For the Member States this amount is specified as follows: \*The minimum amount of coverage is increased to EUR 1,050,000/victims or EUR 5,240,000/claim, no matter the number of victims; \*The minimum amount of coverage for the material loss is increased to EUR 1,050,000/claim, no matter the number of victims

on the basis of a coefficient for the establishment of a life annuity, commensurate with the duration of the residual future life of the injured party that can be predicted on the basis of statistical data. However, a corrective measure is necessary for taking into account the fact that the victim would not have received income for the whole life, but until the retirement age or in any case of withdrawal from the production cycle.

The capitalized amount coefficients that were used until 30th Jun 2018, were based on the coefficients published in Italy in 1922, which were obtained from the population census in the period 1901-1911. The coefficients were changed because:

- Other than referring to another country, average life expectancy has increased compared to 1922;
- The base interest rate of 4.5% is not constant anymore due to its reflection the country's economic environment.
- Reference was to common tables, not split into Women/Men, while statistics have shown that women's average life expectancy is always higher.

By regulation, personal injury claims involving death shall be adjusted with the following formula:

$$D = (T_{ap} - K_{avn} \cdot T_{ap}) \cdot K_{shk} \cdot K_{mdp}$$

Where:  $T_{ap}$ - annual personal income,  $K_{avn}$ - income for own personal needs coefficient,  $K_{shk}$  capitalized amount coefficient,  $K_{mdp}$ - retirement age coefficient.

The recommendations in the regulation no. 53, are as follows:

Regarding the annual personal income: - if the deceased was employed, the calculation is based on the average net income of the last three years prior to the day of the accident; - if the deceased was not employed, the calculation shall take into account the gross official minimum salary at the moment of the accident; - if the deceased was a private business owner, the calculation shall take into account the net income declaration as confirmed by the tax/social insurance authorities, and calculated as an average of the last three working years;

Regarding the income for own personal needs coefficient, it shall be calculated as follow: when the deceased had three or more persons (exclusive of the deceased) in his/her family, the deductible portion shall be 30% of the income; 40% if had two other persons and 50% if he/she had one other person in his or her family.

Regarding retirement age, the coefficient is fixed, if the deceased was employed, the retirement age coefficient is set to 0.90 and 0.8 if the deceased was unemployed.

### 3. New Capitalized Amount Coefficients

Following the publication of recent data by INSTAT (Albania: Population Projections 2011-2031), which is the latest information on mortality table in Albania, Albanian FSA updated the table in relation to the capitalized amount coefficients. The selected interest rate is 3.5%, which is based on the average of the last 5 years of treasury bills with a maturity of 12 months and is in line with the return on investment of the assets covering the technical provisions.

The coefficients of the capitalized amount are based on two elements: - average future life expectancy of individuals, calculated taking into consideration mortality tables; - the interest rate used for capitalization. The higher the average life expectancy, the higher the capitalization coefficient, and the higher the interest rate to be taken into account, the lower the capitalization coefficient.

In the following paragraph we show how are calculated, from actuarial point of view, the capitalized amount coefficients. Based in:- International Actuarial Notation<sup>3</sup>, - (Pitacco E, 2000, 133), (Pitacco E, 2002, 202), (Rotar 2007, 502), Slud 2001, pages 1 and 149) and the other text books in actuarial mathematics, we have the mortality tables and commutation factors as follows:

- $q_x$ , is the probability that x (age of a person) will die within 1 year, according to the mortality table

<sup>3</sup> Journal of the Institute of Actuaries (1886-1994), Vol. 75, No. 1 (JUNE 1949), pp. 121-129

- $p_x$ , is the probability that x will live up to x+1, according to the mortality table
  - $l_{x+1} = l_x \cdot (1 - q_x)$ , is the number of persons who attain age x +1 according to the mortality table
  - $d_x = l_x \cdot q_x$ , the number of persons who die between ages x and x + 1 according to the mortality table.
  - $v = \frac{1}{1+i}$ , discounted factor, the present value of 1 due one year hence, according to the mortality table
  - $D_x = v^x \cdot l_x$
  - $N_x = \sum_{j=x}^{\omega} D_j$
  - $\ddot{a}_x = \frac{N_x}{D_x}$ , is an annuity-due to continue during the life of (x), the first payment to be made at once.
  - $\alpha_x^{(k)}$ , is an annuity of x payable by k instalments of 1/k each throughout the year, the first payment being one of 1/k at the end of the first 1/kth of a year.
  - $\ddot{\alpha}_x^{(k)}$ , is an annuity-due where the first payment of 1/k is to be made at once
- $$\alpha_x^{(k)} = \frac{k-1}{2k} \ddot{\alpha}_x + \frac{k+1}{2k} \alpha_x$$
- $$\ddot{\alpha}_x = 1 + \alpha_x$$
- $$\alpha_x^{(k)} = \frac{k-1}{2k} + \alpha_x$$
- $$\ddot{\alpha}_x^{(k)} = \ddot{\alpha}_x - \frac{k-1}{2k}$$

so, to calculate the capitalized amount coefficients, which is applied in (1), from  $\ddot{a}_x$  we deduct by 11/24 to express the payment monthly.

In order to see the difference between the coefficients that were in force up to 30th Jun, 2018 and the updated coefficients we consider three scenarios aiming at being representative of the diversity of potential situations. First scenario involve a 20 year old man/woman, unmarried with two surviving parents, second scenario involve a 40 year old man/woman, with one surviving spouse/husband and two children, and the third scenario involve a 55 year old man/woman with one surviving spouse/husband and two children. In the table 3, below we calculate the compensation in case of death, for the three different scenarios. Based on the old coefficients the compensation was the same in case if the victim was male or female. With the new coefficients, ceteris paribus, there is a difference if the victim is male or female.

**Table 3.** Claim compensation for personal injury based on different scenarios (values in ALL).

Data of the victim	First scenario 20 year old, unmarried with two surviving parents	Second scenario 40 year old man, with one surviving spouse/husband and two children	Third scenario 55 year old man with one surviving spouse/husband and two children
Monthly income	Compensation value(including the burial expenses at a fixed amount of ALL 250,000 ALL)	Compensation value(including the burial expenses at a fixed amount of ALL 250,000 ALL)	Compensation value (including the burial expenses at a fixed amount of ALL 250,000 ALL)
<b>Old coefficients</b>			
200,000 ALL	25,103,392	24,922,816	18,722,104
150,000 ALL	18,890,044	18,754,612	14,104,078
100,000 ALL	12,676,696	12,586,408	9,486,052
50,000 ALL	6,463,348	5,537,032	4,868,026
24,000 ALL (unemployed)	3,232,407	3,210,738	2,220,358
<b>Updated coefficients</b>			
<b>Man</b>			
200,000 ALL	32,036,412	31,571,924	24,601,129
150,000 ALL	24,089,809	23,741,443	18,513,347
100,000 ALL	16,143,206	15,910,962	12,425,565

<b>50,000 ALL</b>	8,196,603	8,080,481	6,337,782
<b>24,000 ALL (unemployed)</b>	4,064,369	4,008,631	3,172,135
<b>Woman</b>			
<b>200,000 ALL</b>	33,004,944	33,221,896	26,655,143
<b>150,000 ALL</b>	24,816,208	24,978,922	20,053,858
<b>100,000 ALL</b>	16,627,472	16,735,948	13,452,572
<b>50,000 ALL</b>	8,438,736	8,492,974	6,851,286
<b>24,000 ALL (unemployed)</b>	4,180,593	4,206,628	3,418,617

As we can see from the table, with the new updated coefficients, which are in force from July 1st, 2018, there is a significant increase in claim compensation. Based on the different scenarios presented in the table: a) if the victim is a male, there is in average an increase in claim compensation of: - 27% in the first scenario; - 28% in the second scenario; - 32% in the third scenario. b) if the victim is a female there is in average an increase in claim compensation of: - 31% in the first scenario; - 35% in the second scenario; - 43% in the third scenario. As it is expected the increase for female is higher because statistics have shown that women's average life expectancy is always higher.

#### 4. Conclusion

In this paper, firstly we have presented an overview of Albanian insurance market followed by some key highlights regarding Domestic MTPL. Then we have briefly presented the Regulation no. 53. "On handling claims covered by contracts of compulsory insurance in the transport sector". In the end we have presented the approach how capitalized amount coefficients are calculated, followed by a impact analysis of the change in personal injury regulation. We show, for three different scenarios, that with the new updated coefficients, which are in force from July 1st, 2018, there is a significant increase in claim compensation. The increase is more than 27% for male and more than 31% for female.

Regarding the Regulation no. 53, we recommend to amend the article 14, paragraph e) regarding the victims under 16 years, which by regulation receive a fixed compensation of ALL 1,000,000. We believe that this compensation is discriminatory. One approach that we suggest to calculate the capitalized amount coefficients for victims under 16 years as follows:

$$\text{capitalized amount coefficients of age } 18 \cdot \frac{1}{(1+i)^n}$$

where  $i$  is interest rate used for each capitalized amount coefficients and  $n$  is the difference of age 18 and the age of the victim at the moment of accident.

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