

**Название публикации:**

Optimization of the formation of the capital structure of the insurance company, taking into account the national specifics of insurance

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**Аннотация:**

The study proposed an economic model of capital optimization of the insurance company, based on the actuarial method of calculating insurance tariffs. Features of the national insurance system are considered. A mathematical model and actuarial calculation of insurance tariffs for partners in the implementation of joint activities are proposed. As the algorithm implementation calculations were made for the model of joint life insurance of spouses, which has their own practical interest. A lump-sum net rate has been calculated for a contractual partner in the event of the death of one of the partners (spouses) before the retirement age, depending on the interest rate, the age of the spouses, their residual times to pensions, the death rates and the maximum permissible ages. Average time and variance of the Treaty were calculated. It is practically important for the insurance company when planning the investment of assets under the agreement. The results of the research allow us to calculate the insurance tariffs in the form of a lump sum payment to the insured persons and to evaluate the numerical characteristics of the validity period of the contract. © 2018 Sukhorukova and Chistiakova.

**Ключевые слова:**

Distribution density, Distribution function, Economic mathematical model of risk insurance, Insurance rates, Interest rate, Life insurance, Net premium