This thesis deals with bonus-malus systems during motor third party liability insurance. Bonus-malus system is used to adjust apriori set tariff premium according to the individual claims. This fruther adjustment of premium rate serves to make claim costs even more fair distributed among policyholders in one tariff class. We model driver's passage through the system as a homogenous Markov chain. The result of this thesis is the assessment of the efficiency of the systems used by two insurance companies in the Czech Republic on a model insurance portfolio.