

This thesis is concerned in credit risk modelling, especially the default probability and time to default variable. It deals with two commonly used methods to figure out the term structure of default probability. The first one is based on credit migration. It is assumed that the credit migration process follows a time homogeneous Markov chain. To test the assumption of time homogeneity two test statistics are proposed in the thesis. The later method for establishing the term structure of the default probability uses the fact, that estimation of credit curve is analogous to a construction of the yield curves. So Nelson-Siegel function can be used for this aim. Then the model for the time to default is described. It is based on the theory of random censorship. Some of these methods are illustrated on real data.