

I. Genriha, I. Voronova AIZŅEMĒJU KREDĪTSPĒJAS NOVERTĒŠANAS METODES

I. Genriha, I. Voronova METHODS FOR EVALUATING THE CREDITWORTHINESS OF BORROWERS

The Internal Rating Based Approach (IRB) of the Basel Capital Accord allows banks to use their own rating models for the estimation of probabilities of default (PD). Statistical theory offers a variety of methods for building and estimation rating models (scoring models). The complexity and flexibility of statistical models and advanced computing technology has made such credit scoring possible in business lending.

The objective of this research is to present mathematical-statistical methods of creditworthiness evaluation usage at banks, describe technical issues of scoring model development for each of methods, and analyse advantages and disadvantages of them. To achieve the objective of this article authors are using theoretical, analytical and comparative methods of research. Scoring models development issues are analysed in observance with the requirements of and definitions presented in EU new capital adequacy directive (EU, 2006) that was based on Basel 2 paper (BCBS, 2006).

Credit scoring model is a mechanism used to quantify the risk factors relevant for an obligor's ability and willingness to pay. The aim of the credit score models is to build a single aggregate risk indicator for a set of risk factors. The risk indicator indicates the ordinal or cardinal credit risk level of the obligor. The result is an index of creditworthiness expressed as a numerical score, which indirectly measures the borrower's probability of default.

The techniques underlying credit-scoring models were devised in the 1930s by authors such as Fisher (1936) and Durand (1941), the decisive boost to the development and spread of these models came in the 1960s, which studies by Beaver (1967), Altman (1968) and others.

Among the most widely used models to forecast default includes parametric models like discriminatory analysis, linear regression analysis, classification tree and nonparametric models like neural networks, genetic algorithms, expert system. Authors are trying to open all technical issues of each method and show the difference of practical using, but not attempting to evaluate which method is better. Because in general there are only two types of models: models that "work" and those that "don't work". The question of "which modelling method produces the best performing failure prediction model(s)?" cannot be answered conclusively. Unfortunately, no study has systematically compared the performance of all the different models: different factors or constraints determine different aspects of modelling and performance issues and each model addresses different issues.

The models offer a cost-efficient way to make sound decisions based on bank or industry experience. Different types of credit scoring models are used for various activities. For example, credit scoring models can be used effectively to control risk selection, manage credit losses, evaluate new loan programs, reduce loan approval processing time, ensure that existing credit criteria are sound and consistently applied, increase profitability and minimize acquisition costs.

Furthermore, as Latvia becomes more consumer credit culture and people start to borrow money for homes and other investments, an international risk standard management framework becomes more important for Latvian's banks. The advantage of credit scoring models certainly will help banks to meet the next wave in Latvian's consumer loans and mitigate default risk.