Estimating Credit Quality Transition Matrices for the Commercial Loan Portfolio in the Colombian Financial System

Issue No. 26 AUTHOR OR EDITOR José Eduardo Gómez Paola Morales Fernando Pineda Nancy Zamudio Financial institutions rate loans as an expression of the risk they believe the client poses. With the data from those ratings, they can evaluate the current quality of their balance sheet and calculate the loan-loss provisions required for their loan portfolio. A loan rating also is an instrument for assessing and granting a loan, and for deciding how much to charge for it.

However, in a credit-risk management system, the forecast on client default and possible changes in client status also is extremely important.1 For financial institutions, transition matrices are a fundamental tool in this respect, as they measure the likelihood of migration from one rating to another. This is done for each client and should be measured as precisely as possible.

In literature and conventional credit-risk models, transition matrices usually are measured in discreet time. Nonetheless, exploring more precise tools, such as those offered by duration models, is of interest. For that reason, a duration model is presented in this article and the transition matrices are estimated in continuous time.

This article is divided into five sections, including the introduction. The data used to arrive at the estimate are described in Section II. The method used to estimate the transition matrices in discreet and continuous time, and the results of those estimates are contained in Section III. The duration model is presented in Section IV and the conclusions in Section V.

Fuente: https://www.banrep.gov.co/en/estabilidad-tema-26