## ABSTRACT

Master's Thesis: 100 pp., 20 tables, 13 figs, 2 add., 41 sources.

## FINANCIAL INSTITUTION, BANK, ENTERPRISE, ANALYSIS, FINANCE, MODELS, PRODUCTION, EVALUATION, RESOURCES, LIQUIDITY RISK.

Object of study - deposits of individuals of a leading banking institution.

The purpose of the dissertation is to develop behavioral models of retail clients to calculate liquidity risk.

To achieve this goal, the following tasks were accomplished:

systematic existing methods for ensuring the accuracy and correctness of statistics;

 developed a model of early repayment and extension of retail customers and implemented it programmatically;

- experimental studies were conducted using model results on evidence.

To date, the banking system has seen a significant increase in risk - orientation, and focuses on preventing risks and analyzing the potential losses that they may create. Considering the fact that retail deposits are the primary source of financing, the Bank should estimate the expected outflow / prolongation of these funds to calculate the volume of possible financing to customers and to comply with liquidity risk ratios. Therefore, it is relevant to provide objective and reliable information on the potential losses that the Bank may incur in the event of a significant outflow of retail deposits, as well as the proportion of the deposit portfolio that will be extended and, accordingly, improve the risk assessment. liquidity.

The dissertation work was carried out in accordance with the plan of research works of the Institute of Applied System Analysis of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". The following methods were used to solve this problem: methods of algorithm theory and programming (for software implementation of the developed algorithms); methods of probability theory and mathematical statistics (for conducting experiments); empirical method (for calculating model coefficients and analyzing deposit behavior statistics).

Methods and models that can be used by banks to calculate the liquidity risk indicator and to properly reflect the behavior of retail customers' deposit facilities are proposed.