

ABSTRACT

The topic: Stress-testing of bank liquidity .

Thesis: 135p., 25 fig., 20 tab., 2 appendixes, 33 sources.

Object of study - liquidity and liquidity risk of commercial banks.

Subject of the research - the stress testing methods.

Purpose of the research is to design an information system for modeling, forecasting and liquidity stress testing.

The paper analyzes the dynamics of liquidity of the selected commercial bank, also the existing methods of stress testing were analyzed, the individual features of the selected commercial bank were highlighted, a carefully chosen specialized stress testing methods has been implemented as an information processing system. The developed software allows to analyze, forecast and conduct liquidity stress testing.

The system is implemented in a multi-paradigm numerical computing environment Matlab 2015 by using a proprietary programming language Matlab. The graphical user interface (or GUI) was created by using an interactive tool called GUIDE. Examples of application software for forecasting and liquidity stress testing based on real financial data are shown. A possible further ways of improving the system were considered.

LIQUIDITY, STRESS-TESTING, SENSITIVITY ANALYSIS, SCENARIO ANALYSIS, REVERSE ANALYSIS, AUTOREGRESSION.