

A two-stage financial network model

Meihui Guo

National Sun Yat-sen University

Abstract

We consider a two-stage financial network model. In the first stage, we build Lasso penalized vector auto-regression (VAR) and quantile regression models for returns of financial stocks. We adopt debiased methods to correct the shrinkage effect of Lasso. In the second stage, we use the adjacency matrix obtained from the first-stage to build the second-stage network model which is utilized to investigate the network effect of the financial stocks. An empirical study is performed.