

Analysis of connected structure among individual companies

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Keyword: Systemic risk, connectedness, financial crisis

1 Abstract

Investigation of the connectedness structure among individual companies in financial market provides extra insights on measuring systemic risk. The risk induced the sub-prime crisis in 2008 create the synchronization of market status with other countries through unobserved channels. Here, we consider whether the common factors in asset pricing model are related to the connected structure. To do that, we employ the Fama-French three-factor model and construct network structure using the simulation data. The empirical analysis of the possible factors of connectedness supports that the common factors, that can describe price of individual asset, could be attributed to perform the formation of network structure among individual companies.