The Simple Economics of Bank Fragility

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Abstract: Banks are linked through the interbank deposit market, participations like syndicated loans and deposit interest rate risk. The similarity in exposures carries the potential for systemic breakdowns. This potential is either weak or strong, depending on whether the linkages remain or vanish asymptotically. It is shown that the linearity of the bank portfolios in the exposures, in combination with a condition on the tails of the marginal distributions of these exposures, determines whether the potential for systemic risk is weak or strong. We show that if the exposures have marginal normal distributions the potential for systemic risk is weak, while if e.g. the Student distributions apply the potential is strong.

Keywords: Bank Linkages, Fragility and Systemic Failure, Multivariate Extreme Value Analysis, Asymptotic Dependence and Independence

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