

Generalization of the Marshall-Olkin distribution and applications to Systemic Risk and Contagion

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A generalization of the Marshall-Olkin distribution is presented in order to allow for dependence among the systemic shock and the idiosyncratic shocks inducing defaults in a system. This model is used to incorporate contagion in the analysis of a set of obligors. The task will be to identify the infectious elements, to measure the degree of contagion and to allow for it in the estimation of the systemic risk.